DISSERTATION ON

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING LIFESTYLE MODIFICATION AMONG CLIENTS WITH TYPE-2 DIABETES MELLITUS ATTENDING DIABETOLOGY OUTPATIENT DEPARTMENT AT RAJIV GANDHI GOVERNMENT GENERAL HOSPITAL, CHENNAI-3.

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CERTIFICATE

This is to certify that this dissertation titled**, "A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING LIFE STYLE MODIFICATION AMONG CLIENTS WITH TYPE-2 DIABETES MELLITUS ATTENDING DIABETOLOGY OUTPATIENT DEPARTMENT AT RAJIV GANDHI GOVERNMENT GENERAL HOSPITAL, CHENNAI-3"** is a bonafide work done by **Mrs.K.CHITRA**, M.Sc (N) II Year, College of Nursing, Madras Medical College, Chennai-03, submitted to The Tamil Nadu Dr.M.G.R. Medical University, Chennai in partial fulfillment of the requirement for the award of the degree of Master of Science in Nursing Branch-I, Medical Surgical Nursing under our guidance and supervision during academic year from 2016-2018.

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ABSTRACT

Introduction: The prevalence of diabetes is increasing globally, currently India has the largest number of diabetes when compared with other developing countries. Though Diabetes mellitus is a chronic condition but people with diabetes can lead a normal life. Life style modification can be a very effective way to keep diabetes under control. A study helps to assess the effectiveness of structured teaching programme on knowledge and attitude regarding lifestyle modification among clients with type-2 Diabetes mellitus attending Diabetology Outpatient department at Rajiv Gandhi Government General Hospital, Chennai.

Objective: The objective of the study was to assess the pretest level of knowledge and attitude regarding lifestyle modification of type 2 Diabetes mellitus patient and to determine the effectiveness of structured teaching programme and to associate pre-test and post-test knowledge with selected demographic variables.

Material and Methods: In this study quantitative with evaluative research approach and pre experimental one group pre-test and post test design was used. The study was conducted at Diabetology Outpatient department at Rajiv Gandhi Government General Hospital, Chennai. 60 samples were selected for this study using non probability purposive sampling technique. Semi structured questionnaire was used to assess the level of knowledge and attitude and descriptive and inferential statistics were used for analysis and interpretation of data.

Results: The findings of the study showed that, the post-test mean knowledge score 19.88 was comparatively greater than pre-test score 10.52 and the computed 't' value was 19.27 at $P \leq 0.05$ level of significance. Similarly, post-test mean knowledge score of attitude 82.85 was greater than pre-test attitude mean score 44.08 and the

computed ‘t’ value t=28.82 was significant at P=0.001. Thereby, the study was effective at P≤0.001 level of significance.

Conclusion: The results revealed that, most of the patients with Diabetes mellitus had improvement in level of knowledge and attitude after STP regarding lifestyle modification. Further, comparative studies could be done on rural and urban patients.

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LIST OF ABBREVIATIONS

AC	Ante Cibum
ADA	American Diabetic Association
CBG	Capillary Blood Glucose
CHO	Carbohydrate
DFS	Diabetes Fact Sheet
DM	Diabetes Mellitus
HbA1c	Glycosylated Hemoglobin
ICMR	Indian Council of Medical Research
IDDM	Insulin Dependent Diabetes Mellitus
IDF	International Diabetes Federation
IDRF	Indian Diabetes Research Foundation
IGT	Impaired Glucose Tolerance
MCR	Micro Cellular Rubber
NIDDM	Non Insulin Dependant Diabetes Mellitus
OGTT	Oral Glucose Tolerance Test
OHA	Oral Hypoglycemic Agent
PC	Post Cibum
SMBG	Self Monitoring Blood Glucose
SPSS	Statistical Package for Social Science
WHO	World Health Organization

CHAPTER-I
INTRODUCTION

"Let Food be thy medicine and medicine by thy Food"

-Hippocrates 460-360 BC

Women and diabetes - Our right to a healthy future was a theme of World Diabetes Day 2017. Diabetes mellitus is a group of metabolic disease characterized by increased level of glucose in the blood as defect in insulin secretion and insulin action or both.

There are currently over 199 million women living with diabetes and this total is projected to increase to 313 million by 2040[1]. The global prevelance of diabetes was estimated to be 9% among adults aged above 18 years. India (31.7 million) topped the world with the highest number of people with diabetes mellitus followed by China (20.8 million) and theUnited States (17.7 million) in the second and the third place respectively. It is predicted that by 2030 diabetes mellitus may afflict up to 79.4 million individuals in India, while China (42.3million) and the United States (30.3million)will also see significant increase in those affected by the disease. Lower proportion of the population is affected in states of Northern India(Chandigarh 0.12 million, Jharkhand 0.96 million) as compared to Maharashtra (9.2 million) and Tamil Nadu(4.8 million).

There are 30.3 million[2] people with diabetes (9.4% of the US population) including 23.1 million people who are diagnosed and 7.2 million people(23.8%) undiagnosed .The number of pre diabetes including 23.1 million adult aged 65 years or older age group with highest rate .

Recently World Health Organization (WHO) released findings that placed India among the top three countries with the highest number of diabetes cases.A later report suggested that there were 171 million

people with diabetes in 2000, and predicted to be 366 million people by 2030. It appears that these reports have consistently underestimated the global burden given that a 2011 IDF report estimated there were already 366 million people with diabetes, a number previously forecast for 2030[3].In 2016, the most recent prediction is that in 2040 there will be 642 million people with diabetes worldwide.

Increasing incidence of lifestyle disorder among Indians are largely attributed by unhealthy lifestyle practices like poor dietary pattern, inadequate physical activities, smoking, alcohol consumption. Promotion of healthy lifestyle practice among adolescents and adult will reduce the prevalence of Diabetes mellitus.

Dr.A.Ramachandran in 2015 from IDF said, India already the diabetic capital of the world, is heading towards a diabetic explosion .They expected 70 million people to be affected by 2015.[4]A recent study did in Chennai shows an increase in prevalence of 40%in urban areas in six years and 49%in rural areas in three years. This proves the general hypothesis of diabetics affecting more urbanities than rural people to be wrong.

Diabetes mellitus is an increasingly important global public health problem that threatens to reach pandemic level by 2030.Some randomized trials have consistently shown that, increased physical activity and weight loss are effective approach to the control and prevention of diabetes[5]

A health promotion programme helps the diabetic clients in gaining knowledge and developing attitude. The health promotion programme can guide, teach and promote an environment for the diabetic clients to practise the preventive measures like diet control, exercises ,medication and foot and regular follow up [6].

Jeffrey Johnson in the year 2013,lifestyle related risk factors play an important role in the development of diabetes mellitus. This is evident from increasing incidence of various secondary complications in diabetes. Some of these risk factors like dietary choices, smoking and alcohol consumption, overweight and secondary lifestyle are modifiable .Studies have shown that factors if effectively controlled, can lead to reduction in the risk of developing complications.

1.1. NEED FOR THE STUDY

The prevalence of diabetes is increasing globally. Fortunately there is compelling evidence from clinical trials that lifestyle modification and education can minimize the risk of diabetes, and new treatment can reduce the burden of risk mortality and morbidity.

Rapid urbanization and industrialization have produced advancement on the social and economic front in developing countries such as India which have resulted in dramatic lifestyle changes leading to life style related disease like diabetes, hypertension. Thus information regarding health aspect such as diet , exercise, medication is needed to modify the life style in order to improve the quality of life.[7]

Currently India has the largest number of diabetes while comparing to the other developing countries.Most of the recent increase in diabetes is lifestyle-related. In India also the dramatic rise in the prevalence of diabetes mellitus is closely associated with changes in lifestyle like relative physical inactivity, central obesity and change in food habits, particularly increased consumption of fast foods .[8]

As per the survey results, prevalence of diabetes in Vellore district is 16.7% in a total district population of 3928106, male 1968430 and female 1968430. [9]

A health promotion programme helps the diabetic clients in gaining knowledge and developing attitude.The health promotion programme can guide,teach and promote an environment for the diabetes clients to practise the preventive measures like diet control, exercises, medication ,foot care and regular follow **up (Ravi Chandran 2012).**

In 2016 the Tamil Nadu results of the first INDIAB[study supported by the Indian council of medical research indicate that there are about 42 lakhs indivuals with a diabetes and 30 lakhs people with pre- diabetes.[10] Dr.Anjana also said that an analysis of the age-wise prevalence showed a higher percentage among the younger group, and by the time people reached 55 years, almost 50 percent was diabetic. Control of blood sugar is an important factor,as it is the key in preventing organ complications that could even lead to death. In urban areas, the glycaemia control ranged between good to poor reasonably in one third of the patient studied.

Indian Medical Association 2015, Dr.Mohan national coordinator of the INDIAB study ,said that the study shows the real burden of the disease in the population, For the first time a comprehensive picture of the national prevalence would emerge, providing sufficient fodder for planners and health policy makers. It was also the first time such an extensive study was being done in the North East region, he added.

Diabetes is spreading fast across the country and in Chennai 38% people who are under 40 are with diabetes with the incidence shooting up tenfold in the past 30 years. The Chennai urban rural epidemiology study (cures) which covered 26,001 individuals above the age of 20 shows that 20% of the subjects were diabetics. The incidence of diabetes in the city was 1in 10%.

20 years of age has gone up from 18.6% six years ago to 24.7%.The city specific study showed that 20% of people between 20 to

55 years have diabetes. In rural areas the incidence from 1% of 40 years ago has come to 8 % at present "Considering that a large part of the population lives in the rural areas, even a small jump in numbers could mean a lot,"said Dr Mohan [11]

In Rajiv Gandhi Government General Hospital 700 cases per day attended in Outpatient department, As per record per month 21,000 cases are coming to the department. It includes type 1diabetes 30-40 per day , type 2 diabetes 300-400 per day and new cases 30-40 per day . The department is actively engaged in basic research, clinical research and experimental research. Type 2 diabetes formally known as adult diabetes occurs when there are insufficient insulin producing pancreatic beta cells for the body needs, Lifestyle modification is important to prevent early stage of type 2 diabetes. So this structured teaching program is made to reduce the micro and macro vascular complications of diabetes mellitus.

1.2 STATEMENT OF THE PROBLEM

A Study to assess the effectiveness of structured teaching programme on Knowledge and attitude regarding life style modification among clients with type -2 diabetes mellitus attending diabetology out patient department at Rajiv Gandhi Government General Hospital, Chennai"

1.3 OBJECTIVES

- To assess the pre-test levels of knowledge and attitude regarding life style modification among type -2 diabetes mellitus clients.
- To determine the effectiveness of structured teaching programme on levels of knowledge and attitude regarding life style modification among type-2 diabetes mellitus clients.

- ❖ To associate the findings of post test levels of knowledge and attitude scores regarding life style modification with selected demographic variables

1.4 OPERATIONAL DEFINITION

1.4.1 Assess Effectiveness

It refers to significant difference in the levels of knowledge and attitude regarding life style modifications among patients with diabetes mellitus before and after structured teaching programme.

1.4.2 Structured TeachingProgramme

It refers to teaching material developed by the investigator for imparting knowledge and attitude regarding life style modification of type 2 diabetic mellitus clients.

1.4.3 Knowledge

It refers to the information gained by the patient's lifestyle modifications on diabetes mellitus as measured by structured interview schedule prepared by the investigator.

1.4.4 Attitude

It refers to patient's perception and beliefs regarding lifestyle modifications on diabetes mellitus as measured by Likert scale developed by the investigator.

1.4.5 Life Style Modification

It refers to the ways of altering the day to day activities such as diet, exercise, self monitoring on blood glucose, foot care, prevention of complications, follow up.

1.4.6 Type-2 Diabetic Clients

It refers to patients who were diagnosed as non-insulin dependent mellitus for the first time based on blood investigations like AC,PC(fasting, postprandial),Hb A 1 c.

1.5 HYPOTHESES

H_1 – There is a significant difference in pre and post test levels of knowledge and attitude regarding lifestyle modification among patients with type-2 diabetes mellitus clients.

H_2 – There is a significant association between post test levels of knowledge and attitude regarding lifestyle modifications with selected demographic variables among patients with type-2 diabetes mellitus clients.

1.6 ASSUMPTIONS

Structured teaching programme are effective to improve the levels of knowledge and attitude regarding life style modification.

1.7 DELIMITATIONS

The study is delimited to

- Patients who are insulin dependent diabetes – Type –I.
- Data collections will be 4 weeks only.

1.8 CONCEPTUAL FRAMEWORK KOLCABA'S THEORY OF COMFORT

Conceptualization is the planning and designing of ideas. The model helps in the research progression. Kolcaba'stheory[31] of comfort was developed by Katherine Kolcaba in 1990.

According to Kolcaba model, comfort is an immediate desirable outcome of nursing care. According to this model, patients are

considered to be individual, families, institutions or communities in need of health care. In the model, nursing is described as the process of assessing patient's comfort needs, developing and implementing nursing care plans and evaluation of those plans.

HEALTH CARE NEEDS

Kolcoba defined health care needs as any deficits in any context of comfort that arise from Stressful health care situations which the patient's natural system cannot meet. In this study, health care need refers to levels of knowledge and attitude among patients with diabetes mellitus.

NURSING INTERVENTIONS

According to Kolcaba, it refers to the comfort measures which nurses design and implement that are targeted to health care needs. These interventions have the explicit goal of enhancing the patient's immediate comfort and for facilitating subsequent desirable health seeking behavior. In this study nursing interventions include health promotion program to improve the levels of knowledge and attitude regarding life style modifications.

INTERVENING VARIABLES

It refers to factors that each patient brings to health care situation that nurses can't change and that have an impact on the success of interventions. In the study the demographic variables such as age, gender, religion, marital status, educational status, occupation, monthly income, type of Family, residential area, type of food, any family history of diabetes mellitus, previous knowledge on diabetes are taken as the, sources of information.

ENHANCED COMFORT

According to Kolcaba, it refers to the immediate experience of comfort in the ease sense, relief and transcendence met in physical,

psychospiritual, environmental and socio-cultural context of experience. In the present study it refers to the improvement in levels of knowledge and attitude among patients with diabetes mellitus following health promotion program.

HEALTH SEEKING BEHAVIOUR:

According to the comfort theory, it includes internal and external behaviour in which the patient engages to facilitate health or peaceful death. Internal behaviours are the effect of exercises on psychological and physiological parameters which include healing, oxygenation etc. and external behaviour includes working in a therapy, ambulation. In this study.health seeking behaviour refers to the personal practice of diet modification, exercise, self monitoring of blood glucose, foot care, prevention of complication, follow up among patients with diabetes mellitus which is an external behaviour.

INSTITUTIONAL INTEGRITY

Institutional integrity is the value, financial stability and wholeness of health care organizations at local, regional, state and national levels. In this study institutional integrity is exhibited by recommending diet modification, exercise, self monitoring of blood glucose, foot care, prevention of complication, follow up among patients with diabetes mellitus.

BEST PRACTICES AND POLICIES

Best practices and policies are protocol and procedures developed by an institution for overall use after collection of evidence. In this study, best policies include the revision of policies to practice health promotion program. In this study, best practices refer to the incorporation of diet modification, exercise, self monitoring of blood glucose. Foot care, prevention of complication, and follow up in day to day practice, for patients with diabetes mellitus.

CHAPTER-II
REVIEW OF LITERATURE

A literature review is a body of text that aims to review the critical points of knowledge on a particular topic of research. (ANA-2000).

Review of literature for the study has been done on knowledge regarding lifestyle modification among diabetes mellitus. Review of literature in this study is arranged under the following heading.

LITERATURE RELEATED TO

Section-A: Knowledge and attitude on diabetes mellitus.

Section-B: Educational programme and Life style modification among type 2 diabetes mellitus.

Section-C: Diet, exercise, self monitoring on blood glucose among type-2diabetics mellitus

Section –D:Foot care practice among type 2 diabetes mellitus.

SECTION A: LITERATURE RELATED TO KNOWLEDGE AND ATTITUDE ON DIABETES MELLITUS

Dr.MDeepaet al (2017) conducted a study from subjects which were drawn from a representative sample of four geographical regions of India, Chandigarh, Tamil Nadu, Jharkhand and Maharashtra representing North, South, East and West and covering a population of 213 million[12]. A total of 16,607 individuals (5112 urban and 11,495 rural) aged ≥20 years were selected from 188 urban and 175 from rural areas. Awareness of diabetes and knowledge of causative factors and complications of diabetes were assessed using an interviewer administered structured questionnaire in 14,274 individuals (response rate, 86.0%), which included 480 self-reported diabetic subjects.

Only 43.2% (6160/14,274) of the overall study population had heard about a condition called diabetes. Overall urban residents had higher awareness rates (58.4%) compared to rural residents (36.8%) ($P < 0.001$). About 46.7% of males and 39.6% of females reported that they knew about a condition called diabetes ($P < 0.001$). Of the general population, 41.5% (5726/13,794) knew about a condition called diabetes. Among them, 80.7% (4620/5726) knew that the prevalence of diabetes was increasing, whereas among diabetic subjects, it was 93.0% (448/480). Among the general and diabetic population, 56.3% and 63.4% respectively, were aware that diabetes could be prevented. Regarding complications, 51.5% of the general population and 72.7% diabetic population knew that diabetes could affect other organs. Based on a composite knowledge score to assess knowledge among the general population, Tamil Nadu had the highest (31.7) and Jharkhand the lowest score (16.3). However among self-reported diabetic subjects, Maharashtra had the highest (70.1) and Tamil Nadu, the lowest score (56.5).

Baptista LC et al (2017) investigated to establish the effect of a long-term multi component exercise (LTMEX) intervention (24 months) on health-related quality of life (HRQoL). In older adults with type 2 diabetes (T2D)[13].This longitudinal retrospective cohort tudy analyzes the effects of a supervised LTMEX program on HRQoL in older adults with T2D (n=279). Participants underwent one of the two conditions: LTMEX (n241) trained three times per week; and unchanged lifestyle of the control group (CO; n 38). Participants completed baseline, and 2-year follow up evaluations including the Short Form Health Survey 36 (SF-36), anthropometric, hemodynamic components: and cardiorespiratory fitness (V02 peak). It reveals that LTMEX improves.

Aryal UR (2015) conducted a study to determine the level of diabetes related health knowledge, attitude and practice (KAP) among diabetic patient and factors associated with KAP[14]. An institutional based cross-sectional study was conducted using a non-probability sampling technique to select the diabetic patients. A total of 244 diabetic patients were interviewed from July to November 2014. Data was collected by face to face interview using structured interviewer rater questionnaires. Median score for knowledge, attitude, and practice were Xl, 40 and 14 respectively. Among all the patients, l2.3%, 12.7% and 16% had highly satisfactory knowledge, attitude and practice respectively. This study reveals a variation between diabetes related health knowledge, attitude and practice in Nepal among those who arc affected by diabetes. The results show the potential diabetes health literacy needs to be as was a significant (P<0.01) improved for better health promotion.

BalasubramanyamM*(2011)* conducted a descriptive study conducted on 100, diabetes patients to assess the knowledge and attitude on self care activities by using interview schedule and Likert'sscale[15]. The results showed that 48% of the patients had inadequate knowledge, 35% of the patients had moderately adequate knowledge and 17% of the patients had adequate knowledge. Regarding attitude 72% of the patients had undesirable attitude, 16% of the patients had desirable attitude and 12% of the patients had most desirable altitude on self care activities. The researcher concluded that most of the patients were having inadequate knowledge and attitude about diabetes mellitus. So it is suggested that proper health education can improve the patient's knowledge and attitude on self care activities.

SECTION B: LITERATURE RELATED TO EDUCATIONAL PROGRAMME AND LIFE STYLE MODIFICATION AMONG DIABETES

Gaillard T 2015 conducted a study on patient-centered community Diabetes education program improves glycemic control in African-American patients with poorly controlled Type 2 Diabetes[16].Importance of Point of Care Metabolic Measurements. African-Americans with type 2 diabetes (T2DM) have higher morbidity and mortality partly attributed to poor glucose control and lack of formal diabetes self-management education and support (DSMES) programs compared to Whites. 124 African-American patients were recruited with T2DM. randomized into Group l-DSMES (n = 58) and Group 2-standard care group (n-38) for 6 months. Body weight, blood pressure, random blood sugars and point-of-care (POC) hemoglobin A1C (A1C) and lipids/lipoproteins were measured at 0. 3, and 6 months. No significant changes were found in the clinical/metabolic parameters in Group 2. This study concludes that DSMES, supplemented with POC testing, was associated with significant improvements in glycemic control without changes in body weight, blood pressure, or lipids / lipoproteins. The inclusion of DSMES with POC testing in managing African-American patients with T2DM attending inner city primary care clinics were recommended.

Vu R (2014)A community-based individualized lifestyle intervention among older adults with diabetes was conducted in 5 community clinics in Tianjin, China. Trained physicians used energy monitors and software as tools to provide eight individualized lifestyle consultation sessions to 273 residents with diabetes (including prediabetes)[17]. The recruitment was based on a waitlist control design. The early group (n = 175) received the 3-month intervention and the late group served as controls; afterward, the early group was followed up while the late group received the 3-month intervention. Selected characteristics between the 2 groups were compared by x (2) tests,

continuous variables paired 't' tests, and independent t tests. Hence concluded that community-based lifestyle programme produced short-term beneficial changes in activity, diet, and clinical parameters in patients with mild diabetes. Larger and longer trials are needed to fully evaluate the effectiveness and feasibility of this model.

Tuso P (2014) conducted a study on diabetes and lifestyle modification: time to prevent a preventable disease. More than 100 million Americans have diabetes[18]. Diabetes is a condition in which individuals have blood glucose levels higher than normal but not high enough to be classified as diabetes. People with diabetes have an increased risk of Type 2 diabetes. An estimated 34% of adults have diabetes. Diabetes is now recognized as a reversible condition that increases an individual's risk for development of diabetes. Lifestyle risk factors for diabetes include overweight and physical inactivity. Increasing awareness and risk stratification of individuals with diabetes may help physicians understand potential interventions that may help decrease the percentage of patients in their panels in which diabetes develops. If untreated, 37% of the individuals with diabetes may have diabetes in 4 years. Lifestyle intervention may decrease the percentage of diabetic patients in whom diabetes develops to 20%. Long—term data also suggests that lifestyle intervention may decrease the risk of diabetes progressing to diabetes for as long as 10 years. To prevent I case of diabetes during a 3-year period, 6.9 persons would have to participate in the lifestyle intervention program. Investment in a diabetes prevention program now may have a substantial return on investment in the future and help prevent a preventable disease.

Lee JK (2014) conducted a study on the effects of a coaching program on comprehensive lifestyle modification for women with diabetes mellitus. The research design for this study was a non-equivalent control group quasi—experimental study[19]. Participants in

this study were 34 for the control group and 34 for the experimental group. The experimental group participated in the Coaching Program on Comprehensive Lifestyle Modification. The program consisted of education, small group coaching and telephone coaching over 4 weeks. The Coaching Program on Comprehensive Lifestyle Modification used in this study was found to be effective in improving self-care behavior and reducing depression, fasting blood sugar and HbAI C, and is recommended for use in clinical practice as an effective nursing intervention for women with diabetes.

ShookaMohammadi (2013) This cross-sectional study was carried out to define level of knowledge, attitude and practices regarding diabetes among 100 type 2 diabetes patients attending to the diabetes clinic in Golestan hospital in Ahvaz a city in southwest Iran during the study period of August to October 2013[20]. The mean age of men and women was 56±6.1 and 53.4± 6.7 years respectively. Sixty one percent of diabetes patients were female and 39 % were male with mean duration of diabetes 4.05 ± 1.4 years. Almost 27 patients were illiterate, but the majority (41%) of them did not get educated after primary level. Of the males, 27 patients (27%) were employed, 12% were retired and most of the females (61%) were housewives. Majority of patients (72%) had household incomes lower than 8,000,000 Rials a month (USD282). More than half of the patients (68%) reported had family history of diabetes. Fifty three percent of patients had good glycemic control (HbA1c level = <7%).

SECTION-C: LITERATURE RELATED TO DIET, EXERCISE, SELF MONITORING ON BLOOD GLUCOSE AMONG DIABETICS.

Campbell AP (2015) conducted a study on Dietary protein which is important in the practical management of diabetes and type 2 diabetes[21]. Many misconceptions surround the role of dietary protein in the management of diabetes, Currently, recommendations for protein

intake are based on individual assessment and the consideration of other health issues and implications, such as the extent of glycemic control, the presence of kidney disease, overweight and obesity, and the age of the patient. For many people with type 2 diabetes. aiming for 20—30% of total energy intake as protein is the goal. It shows greater improvement in fasting plasma glucose ($p= 0.05$) and glycated hemoglobin ($p<0.01$). In addition, health care providers should recognize that persons with diabetes are attempting to manage many other aspects of their diabetes, including blood glucose monitoring, physical activity, and taking of medication, risk reduction, and problem solving.

Vega C (2014) conducted a study on the quality of carbohydrates in the diet and their effect on metabolic control of type 2 diabetes[22]. The objective of this study was to determine the relationship between the parameters of metabolic control and quality of carbohydrates (CHO) of the diet in individuals with type 2 diabetes, controlled with diet and/or Metformin. In 108 men and women aged between 18 and 60 years, glycosylated hemoglobin A (HbAlc) between 6% and 10%, without sulfonylureas or insulin therapy; were examined through two separate surveys of 24-hour recall. The Pearson correlation test was used to analyze the degree of association between variables, considering significant at $p< 0.05$. The mean HbAlc was 7.3 ± 1.3%, CHO consumption was 219.8 ± 27.0 g/day; GI was 74.9 ± 11.3% and GL was 164.0 ± 22.04 g. A significant positive correlation was found out between the CHO intake (r 0.290, $P <0.05$), GI ($r = 0.70$. $p <0.001$), GL ($r = 0.225$, $p <0.05$) of diet and HbA1c levels in the individuals. In conclusion the study showed that the quality of CR0, mainly GI, are strongly associated with metabolic control of DM 2.

Veras VS (2014) conducted a study on self-care among patients enrolled in a self monitoring blood glucose program. This cross-sectional study checks specific self-care activities of patients with diabetes mellitus enrolled in a self-monitoring blood glucose program from August to December 2012 in two Primary Health Care units in the interior of Sao Paulo, Brazil[23]. The sample was composed of 74 female and male individuals, aged 18 years old or older. The summary of diabetes self-care activities questionnaire was used. Eight out of the 15 self-care activities were within desirable levels, namely: healthy diet, not eating sweets, blood glucose testing and as frequently as recommended, drying between toes after washing feet. and taking medications (three iterns).The results enabled there were significant improvements (p= 0.05) identification of gaps in specific self-care activities among patients with diabetes mellitus.

Urbanski (2013) conducted a study to assess the effect of exercise in diabetes mellitus was researched. Trials were identified through the Central Register of Controlled Trials[24]. Fourteen randomized controlled trials comparing exercise, against no exercise in diabetes were identified involving 377 participants. Trials ranged from eight weeks to twelve months duration compared with the control. There was no significant difference between groups in whole body mass, probably due to an increase in fat free mass, with exercise intervention significantly increased insulin response and decreased plasma triglycerides. No significant difference was found between groups in quality of life. The analysis shows that exercise significantly showed improvements in (p=0.05) glycemic control and reduces visceral adipose tissue and plasma triglycerides.

SECTION D: LITERATURE RELATED TO FOOT CARE PRACTICE AMONG DIABETICS.

AR Muhammad-Lutfi (2013) This is a prospective cross sectional study performed between September 2013 until May 2014 on an in-patient population at Hospital SultanahNurZahirah a tertiary medical center in Kuala Terengganu, Malaysia[25] . A total of 157 patients were included in this study with a mean age of 56.33 years (range 31-77) with 94 patients (59.9%) e 55 years or older Table I. There were 72 male (45.9%) and 85 female (54.1%) patients with the majority of them were Malays (154 patients, 98.1%). Only three patients were Chinese (1.9%) from the whole study sample. The mean duration since diagnosed with diabetes was 11.26 years (1-38). Most patients had diabetes for less or equal to 10 years (53.5%). A large majority of the patients earned less than RM2000,00 monthly (120 patients, 76.4%) and only 14 (8.9%) patients had received education beyond the SPM at tertiary level. Based on the chi square test of relatedness (Table III) age, gender, household income per month, educational level and duration since diagnosed with diabetes had no significant association with knowledge and practice with none of the variables had p value of less than 0.05.

Van Baal (2014) conducted a cross sectional study on knowledge and practice of foot care in Iranian people with diabetes, to determine the knowledge and practice of foot care in people with diabetes was undertaken. A questionnaire was completed by 148 patients with diabetes in Tehran, Iran. Knowledge score was calculated and current practice was determined [26]. The knowledge score was 6.6 out of possible 16 illiterate patients who were the least knowledgeable. Lack of adequate knowledge includes the following 56% not aware of the effect of smoking on circulation to the feet, 60% failed to inspect their feet and 42 % did not know to trim their toenails and high risk practice including

walking bare foot. The results of this study highlighted the patient's inadequate knowledge of self care about their foot and lack of optimal foot care services.

Loreto (2013) Researchers had expressed that management of the diabetic foot ulcers are likely to occur in up to 25% of people with diabetes mellitus at some time in their life without adequate management. There is a high risk of infection, gangrene, amputation and death[27]. Over 50% of major amputation in the UK happens to people with diabetes, and within three years of amputation 50% patients die. Diabetic foot ulcer need specific management and some of the principles of moist wound healing do not apply. Diabetic patients with foot ulcers benefit from accurate and prompt assessment, diagnosis, treatment, and long term follow up. In order to conserve the foot ensure that these complex wounds arc treated.

Gelaw,MustefaAhmed,MulunehFromsaSeifu&Dr.Thirumurugan G.et al (2014) conducted a study on assessment of knowledge, attitude and practices regarding life style modification among type 2diabetic mellitus patients attending Adarna Hospital Medical College, Oromia Region, Ethiopia[28]. It shows that concerning knowledge of the patients towards LSM management of diabetic; majority of the patients were knowledgeable which accounts 90(77.59%) followed by 13(11.21%) patients fairly knowledgeable and the other 13(11.21%) patients were poorly knowledgeable. Regarding attitude of the patients 95(81.89%) patients had positive attitude and the other 21(18.11%) had fair attitude. In another way almost half of the patients 57(49,1%) had good practice. The other 39(33.62%) and 20(17.24%) have poor and average practice respectively.

Cezaretto A, Barros CR, Almeida-Pititto B, Siqueira-Catania A, Monfort-Pires M, Folchetti LG, Ferreira SR et al (2012) conducted a study by comparing the effects of two lifestyle intervention programs for type 2 diabetes mellitus (T2DM) prevention traditional intervention or interdisciplinary psycho education-based intervention. This was studied - in daily habits and cardio metabolic risk factors and investigated the role of the psycho educational approach for the retention of individuals in the program[29]. Between 2008 and 2010, in a public health service, 183 pre- diabetic individuals were allocated to two 18-month interventions involving diet and physical activity. Physical activity, diet, quality of life (QOL) and depression and biochemical measurements were obtained, it reveals that improvements in energy intake and physical activity were greater in the interdisciplinary than the traditional intervention, A decrease in fat mass and blood pressure was more pronounced with interdisciplinary intervention. Dropouts from the traditional intervention only had higher BMI and lower fiber intake and QOL than non-dropouts.

Sun Dl, Man W, Zhang L.et al (2012) conducted study on roles of insulin resistance, endothelial dysfunction and life style changes in the development of cardiovascular disease in diabetic patients[30]. Diabetes mellitus (DM) caused 1.3 million death in 2010 and cardiovascular disease is the leading cause of mortality of diabetic patients. Cardiovascular disease in DM involves complex pathophysiology process which is promoted by lots of risk factors. Genetic, epigenetic, lifestyle and environmental factors, are responsible for the current epidemic of diabetes and the subsequent increased risk for cardiovascular disease. Over the past years, targets focusing on increased risk of cardiovascular events in diabetic patients have attracted intense interests. ‘Within this review, the role of insulin resistance, endothelial dysfunction and life style changes in the development of cardiovascular disease in diabetic patients are discussed. Potential strategies and challenges in targeting cardiovascular risks in diabetic individuals are also considered.

CHAPTER-III
METHODOLOGY

This chapter deals with methodology and selected by the investigator to assess effectiveness of structured teaching programme on levels of knowledge and attitude regarding life style modification among patients with type 2 diabetes mellitus at Rajiv Gandhi Government General Hospital,Chennai. Methodology refers to the techniques used to structure a study to gather and analyze information in a systematic fashion.

–Polit&Hungler

3.1 RESEARCH APPROACH

Research approach used for the study was quantitative with evaluative research approach.

3.2 RESEARCH DESIGN

Pre-experimental one group pre-test-post test design.

01	X	02
Pre-test knowledge of life style modification	Structured Teaching Programme	Post-test knowledge of life style modification

01: Pre-test to assess the level of knowledge and attitude regarding lifestyle modification among type 2 diabetes mellitus clients.

X: Structured teaching programme

02: Post-test to assess the level of knowledge and attitude regarding lifestyle modification among type 2 diabetes mellitus clients after structured teaching programme.

3.3 SETTING OF THE STUDY

The study was conducted in Diabetology out patient department at Rajiv Gandhi Government General Hospital, Chennai. As per the records per month 21,000 cases are coming to the department. It includes type 1 diabetes 30-40 per day, type 2 diabetes 300-400 per day and new cases 30-40 per day. The hospital is a well equipped wing with all facilities available in the outpatient department. The department is actively engaged in basic research , clinical research and experimental research . This structured teaching program reduces micro vascular and macro vascular complication of diabetes mellitus. So Ihave interest to do the health promotion program to promote the life style modifications of type 2 diabetes mellitus .

3.4 POPULATION

The populations selected for the study are the patients who are newly diagnosed as type 2 diabetes mellitus,

Target population

Patient with diabetes mellitus attending outpatient department in RGGGH, Chennai-3 and who full fills the inclusion criteria of sample selection

Accessible population

Comprises of both male and female patient with diabetes mellitus outpatient department at RGGGH, Chennai -3

3.5 SAMPLES

The patients who are diagnosed as type 2 diabetes mellitus for first time at RGGGH as outpatient.

3.6 SAMPLING TECHNIQUE

Non probability.purposive sampling technique used for the study.

3.7 SAMPLE SIZE

60 samples will be selected for the study based on inclusion and exclusion criteria.

3.8 CRITERIA FOR THE SAMPLE SELECTION:

3.8.1 Inclusion criteria: Patients who

- Are attending diabetic OPDs
- First time diagnosed as Type 2 Diabetes mellitus
- Able to understand and communicate in Tamil or English.
- Willing to participate in the study.
- Both male and female.

3.8.2 Exclusion criteria: Patients who have

- Cognitive impairment.
- Hearing and visual impairment.
- Below 18 years
- Patients with complains
- Patients who had attended the health promotion program

3.9 VARIABLES

3.9.1 Independent Variables

Structured Teaching Programme

3.9.2 Dependant Variables

Levels of knowledgeandattitude regarding life style modification among type 2 diabetes mellitus.

3.10 DESCRIPTION AND DEVELOPMENT OF THE INSTRUMENT

A search of literature was made for the purpose of developing appropriate tool for assessing knowledge and attitude regarding life style modification on diabetes mellitus.

Structured questionnaire for knowledge and for attitude was developed by the investigator. It was validated by 5 experts from nursing and medical researchers and suggestions are accepted and corrected.

In this study instrument consists of 3 sections.

Section-A

Deals with demographic variables, such as age, gender, religion, marital status, educational status, occupation, monthly income, type of family, type of work, residential area, dietary pattern, habit, any family history of diabetes mellitus, previous knowledge on diabetes mellitus, source of information.

Section-B

It consists of structured interview schedule to assess knowledge regarding life style modifications among patients with diabetes mellitus. It has 25 multiple choice questions each questions has 4 options out of which one is correct answer. For each correct response a score of 1 (one) and for wrong response 0 (Zero) score is given .The total score is 25.

Section-C

It consists of five points Likert Scale is used to assess the attitude regarding life style modification among patient with diabetes mellitus. The total score is 50.

For the positive attitude questions the score is measured as follows.

Strongly Agree	:	5
Agree	:	4
Uncertain	:	3
Disagree	:	2
Strongly Disagree	:	1

For the negative attitude questions the score is measured as follows. Total questions-20.Maximum marks-100.

Strongly Agree	:	1
Agree	:	2
Uncertain	:	3
Disagree	:	4
Strongly Disagree	:	5

3.11 ETHICAL CONSIDERATION

The Study was conducted after the approval from the ethical committee, Madras Medical College, Chennai-3. All respondents were carefully informed about the purpose of the study and their part during the study and how the privacy was guarded. Ensured confidentiality of the study result. Written permission was obtained from all participants.

3.12 PILOT STUDY PROCEDURE

The pilot study is a small-scale version of a preliminary try out method to be used actually in a large study, which acquaints the research with the research method, tools and problems that can be corrected before assessing out of the large study.

After obtaining the formal permission from principal, college of nursing and ethics committee, RGGGH Chennai. Pilot study was conducted among patient with type 2 diabetes mellitus outpatient department,RGGH Chennai-3 who was met the inclusion criteria .It was carried over among 10 selected samples for the period of 7 days from 22.7.17 to 30.7.17.

Pre-test was conducted and data collected using semi structured questionnaire followed by which structured teaching programme was client, with adequate explanation and classification of doubts regarding diet, exercise, physical activity, protecting such disease prevent the complication using power point presentation and booklets .

Post-test was conducted on the level of knowledge regarding meaning and incidence, risk factors, etiology, sign symptoms. Life style modification regarding type 2 diabetes mellitus on 6^{th} day using same semi structured questionnaire. No methodological constraints were found in the pilot study the tool was effective, thereby the study was feasible and practicable.

RELIABILITY OF THE TOOL

After pilot study reliability of tool was assessed by using test-retest method. Knowledge score reliability correlation, co-efficient value is 0.83. This correlation coefficient is very high, and it is a good tool for effectiveness of structured teaching programme on knowledge regarding life style modification among clients with type 2 diabetes mellitus attending diabetology outpatient department at RGGGH , Chennai-3

3.13 DATA COLLECTION PROCEDURE

The data for the main study was collected from02.01.2018 to 28.01.2018 after obtaining permission from Director of Diabetology Department, Rajiv Gandhi Government General Hospital, Chennai. A

total of 60 samples both male and female newly diagnosed with diabetes mellitus were selected using non probability purposive sampling technique. Informed consent was obtained from the sample for their willingness to participate in the study. After verification of informed consent form, the data was collected. semi structured questionnaire and Likert Scale was used to assess the knowledge and attitude. Checklist was used to observe the knowledge and attitude regarding life style modifications of type 2 diabetes mellitus.

Interventional Protocol

Place	:	Diabetology Outpatient Department, Rajiv Gandhi Govt. General Hospital, Chennai-3
Intervention Tool	:	Structured Teaching Programme (Semi structured Questions)
Duration	:	45 Minutes
Frequency	:	1 Time Teaching
Time	:	7.00am to 12.00noon
Administered by	:	Investigated
Recipient	:	Newly diagnosed Type-II Diabetes Mellitus

3.14 PLAN FOR ANALYSIS

- Distribution of demographic variables is analysed by descriptive statistics (Mean, standard deviation).
- To find out the effectiveness of structure teaching programme on levels of knowledge and attitude among patient diabetes mellitus intertial statistics, paired ‘t’ test is used.

- To find out the association between the post test of knowledge, attitude and selected demographic variables, the inferential statistics chi square test is used.

3.15 RESULTS

- The researcher used appropriate statistical techniques for data analysis and presentation in the form of tables, graphs and diagram.

- Demographic data was analyzed by frequency and percentage distribution.

- The effectiveness of structured teaching program on knowledge and attitude regarding life style modification assessed by paired ‘t test between pre-test and post-test.

The association between effectiveness of structured teaching program on knowledge and attitude regarding life style modification is analyzed by using chi square.

3.16 PROTECTION OF HUMAN RIGHTS

Both verbal and written informed consent was obtained from all the study participants and the data collected was kept confidential .Positive benefits were explained to all the study subjects. They were also explained that they may withdraw from the study at any time without any penalty. Anonymity and confidentiality was maintained throughout the study.

CHAPTER-IV
DATA ANALYSIS AND INTERPRETATION

Data was obtained on the effectiveness structure teaching programme based on the levels of knowledge and attitude regarding life style modification among patients with diabetes mellitus at Rajiv Gandhi Government General Hospital

The demographic variables were coded and analyzed .Analysis and interpretation was done with the descriptive and inferential statistics to meet the objectives of the study .This chapter includes four sections .The results and analysis are presented in the following order.

ORGANIZATION OF DATA

Section A : Distribution of demographic variables of patients with diabetes mellitus.

Section B: Effectiveness of structure teaching program on levels of knowledge regarding life style modification among patients with diabetes mellitus.

Section C: Effectiveness of structure teaching program on levels of attitude regarding life style modification among patients with diabetes mellitus.

Section D: Association between level of knowledge and demographic variables regarding life style modification among patients with diabetes mellitus.

Section E: Association between levels of attitude and demographic variable regarding life style modification among patients with diabetes mellitus.

SECTION A: DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF PATIENTS WITH DIABETES MELLITUS

Table 4.1: Percentage distribution according to age of patients with diabetes mellitus

Demographic variables		No. of clients	%
Age	25 -35 years	5	8.33%
	35 -45 years	19	31.67%
	45 -55 years	23	38.33%
	55 -65 years	10	16.67%
	>65 years	3	5.00%
Gender	Male	27	45.00%
	Female	33	55.00%
Marital status	Single	3	5.00%
	Married	53	88.33%
	Widowed	4	6.67%
	Separated	0	0.00%
	Divorced	0	0.00%
Education	No formal education	3	5.00%
	Primary	15	25.00%
	Secondary	17	28.33%
	Higher secondary	10	16.67%
	College	15	25.00%
Employment	Housewife	22	36.67%
	Employed	12	20.00%
	Pensioner	6	10.00%
	Own business	20	33.33%
Nature of Work	Sedentary Work	24	40.00%
	Moderate Work	23	38.33%
	Heavy Work	13	21.67%
Monthly income	Rs.4000-5000	8	13.33%
	Rs.5001-8000	27	45.00%
	Rs.8001-10000	14	23.34%
	Rs.10001 and Above	11	18.33%

Demographic variables		No. of clients	%
Type of family	Nuclear family	31	51.67%
	Joint family	19	31.66%
	Extended family	10	16.67%

This table shows that 38.67% of the patients with diabetes are in the age between 45-55 years, 31.67% are between 35-45 years, 16.67% are between 55-65 years , 8.33% are between 25-35 years and 5% of patients are above 65 years. The majority of the samples were of females 33(55%) and 27(45%) were males with diabetes mellitus.53(88.33%) are married, 4(6.67%) are widowed, 3(5%) are single.17(28.33%) are majority who completed secondary, 15(25%) completed primary and college, 10(16.67%) completed higher secondary, 3(5%) had no formal education . 22(36.67%) are housewife, 20(33.33%) as owning business , 12(20%) are employed , 6(10%) are pensioner. 24(40%) as the majority who are sedentary workers , 23(38.33%) as moderate workers , 13(21.67%) as heavy workers among diabetes ,majority 27(45%) of their income was rupees 5001-8000, 14(23.34%) of their income was rupees 8001-10000, 11(18.33%) of their income was rupees 10001 and above, 8(13.33%) of their income was rupees 4000-5000. 31(51.67%) as the majority in nuclear family, 19(31.66%) as joint family , 10(16.67%) as extended family among patients with diabetes.

Fig-4.1

Table 4.2: Clinical Variables

Clinical variables		No. of clients	%
Presence of co-morbidity	Hypertension	15	25.00%
	Coronary Artery Disease	4	6.67%
	Chronic Kidney Disease	0	0.00%
	Others	4	6.67%
	Nil	37	61.66%
Treatment pattern	Yes	18	78.26%
	No	5	21.74%
Type of treatment	Allopathic	13	56.52%
	Ayush	3	13.04%
	Others	2	8.70%
	Not taking treatment	5	21.74%
Diagnosed to have diabetic since no of years	<1 year	16	26.67%
	<6month	44	73.33%
Do you perform exercise	Yes	23	38.33%
	No	37	61.67%
BMI	Under weight	12	20.00%
	Normal	23	38.33%
	Over weight	19	31.67%
	Obese	6	10.00%
SBP	Normal	19	31.67%
	Not normal	41	68.33%
DBP	Normal	17	28.33%
	Not normal	43	71.67%

Table 2 shows the clinical variables of clients with type -2 diabetes mellitus who are participated in this study.

Table 4.3: Smoking History

Smoking		No. of clients	%
History of smoking	Yes	13	21.67%
	No	47	78.33%
Duration of smoking	< 1 year	5	38.46%
	1 - 2 years	5	38.46%
	> 2 years	3	23.08%
Smoking of cigarette per day	1 -5 per day	7	53.85%
	6 -10 per day	4	30.77%
	> 1 packet	2	15.38%

Fig 7 Table 3 shows the smoking history of clients with type -2 diabetes mellitus who participated in this study .

Table 4.4: Alcoholism History

Alcoholic history		**No. of clients**	**%**
History of Alcoholism	Yes	14	23.33%
	No	46	76.67%
Period of consuming alcohol	< 1 year	8	57.14%
	1 - 2 years	3	21.43%
	> 2 years	3	21.43%
Consumption of Alcohol per day	< 90 ml/day	7	50.00%
	90-180 ml/day	5	35.71%
	>180 ml/day	2	14.29%

Fig 8 Table 4 shows the alcoholic history of clients with type -2 diabetes mellitus who participated in this study.

Table 4.5: Weight

Weight		N	%
Average body weight	50 -60 kgs	31	51.67%
	60 -70 kgs	17	28.33%
	70 -80 kgs	12	20.00%
Weight Hip Ratio(male)	Normal	14	51.85%
	Over weight	7	25.93%
	Obese	6	22.22%
Weight Hip Ratio(male)	Normal	14	42.42%
	Over weight	12	36.36%
	Obese	7	21.22%

Table 5 shows the weight ofclients with type -2 diabetes mellitus who participated in this study.

SECTION B: EFFECTIVENESS OF STRUCTURE TEACHING PROGRAM ON LEVELS OF KNOWLEDGE REGARDING LIFE STYLE MODIFICATION AMONG PATIENTS WITH DIABETES MELLITUS

Objective 1: To assess the pretest levels of knowledge and attitude regarding lifestyle modification among type -2 diabetes mellitus clients.

Table 4.6: Each domainwise pre-test percentage of knowledge regarding lifestyle modification among type -2 diabetes mellitus clients.

Knowledge on	No. of questions	Min – Max score	Knowledge score		
			Mean	SD	% of mean score
Diet for diabetic	7	0 -7	3.20	.99	45.71%
Exercise	5	0 - 5	1.77	.72	35.40%
Foot care	5	0 – 5	1.87	.77	37.40%
Protective skin diseases	3	0 -3	1.23	.56	41.00%
Complication of diabetes	5	0 -5	2.45	.85	49.00%
Total	25	0 - 25	10.52	2.78	42.08%

Table 6 shows each domain wise pre-test percentage of knowledge regarding lifestyle modification among type -2 diabetes mellitus clients. They are having maximum knowledge in **Complication of diabetic**(49.00%) and minimum knowledge score in **Exercise** (35.40%). Overall pretest percentage of knowledge score is 42.08%.

Table 4.7: Pre-test Level of Knowledge

Level of knowledge	No. of clients	%
Inadequate knowledge	46	76.7%
Moderate knowledge	14	23.3%
Adequate knowledge	0	0.0%
Total	60	100.0%

Table No.7 shows the level of knowledge score of lifestyle modification among type -2 diabetes mellitus clients. In general 76.7% of clients are having inadequate knowledge and 23.3% of them are having moderate knowledge and none of them are having adequate knowledge.

KNOWLEDGE SCORE INTERPRETATION:

Min=0 Max=1 Total questions=25 Maximum marks= 25

S.No.	Grade	Percentage	Marks
1.	Adequate knowledge	76 – 100%	18.76-25.0
2.	Moderate knowledge	50 – 75%	12.6-18.75
3.	Inadequate knowledge	0 – 50 %	≤ 12.5

SECTION C: EFFECTIVENESS OF STRUCTURE TEACHING PROGRAM ON LEVELS OF ATTITUDE REGARDING LIFE STYLE MODIFICATION AMONG PATIENTS WITH DIABETES MELLITUS

Table 4.8: Pre-test Level of Attitude Score

s No	Questions	No. of person Attitude score				
		SD	D	N	A	SA
1	Diabetes medication can cure diabetes	6	12	12	18	12
2	Diabetes medication should be taken for life	3	15	9	15	18
3	You should stop taking your diabetes medication when you feel sick	15	6	9	12	21
4	Poor control of diabetes could result in a greater chance of complications	9	6	9	15	21
5	Eating less bread will make me lose weight	6	9	21	9	15
6	Salty food will prevent my sugar levels from dropping	6	12	15	18	9
7	Diabetic medication may cause swelling of the feet	9	12	9	9	21
8	Sore feet are common in people with diabetes	9	12	15	12	12
9	People with diabetes may have poor circulation of blood in the feet	12	6	6	21	15
10	Gentle aerobic exercise helps to control and maintain glucose (sugar) level	3	12	12	18	15
11	Physical exercise is important for people with diabetes	3	6	30	15	6
12	If I did not have diabetes I think I would be quite a different person	9	3	36	6	6
13	There is little hope of leading a normal life with diabetes	6	18	15	15	6

s No	Questions	No. of person Attitude score				
		SD	D	N	A	SA
14	The proper control of diabetes involves a lot of sacrifice and inconvenience	6	9	9	24	12
15	In general, nurses need to be more sympathetic in their treatment of people with diabetes	15	6	24	9	6
16	Having diabetes over a long period changes the personality	9	12	18	15	6
17	Diabetes can be controlled	6	3	12	30	9
18	I believe I have adjusted well to having diabetes	12	6	6	15	21
19	There is really nothing you can do if you have diabetes	12	9	30	6	3
20	Forgot to take diabetic medication in the last week is my habit	6	12	24	12	6

Table 4.9: Pre-test Mean Attitude Score

S No	Questions	Attitude score				
		No. of questions	Min –max score	Mean attitude score	SD	% of mean score
1	Diabetes medication can cure diabetes	1	1-5	2.67	1.37	53.40%
2	Diabetes medication should be taken for life	1	1-5	2.33	1.12	46.60%
3	You should stop taking your diabetes medication when you feel sick	1	1-5	1.90	0.88	38.00%
4	Poor control of diabetes could result in a greater chance of complications	1	1-5	2.57	1.50	51.40%
5	Eating less bread will make me lose weight	1	1-5	2.17	1.32	43.40%
6	Salty food will prevent my sugar levels from dropping	1	1-5	2.07	1.11	41.40%
7	Diabetic medication may cause swelling of the feet	1	1-5	2.20	1.03	44.00%
8	Sore feet are common in people with diabetes	1	1-5	2.10	0.96	42.00%
9	People with diabetes may have poor circulation of blood in the feet	1	1-5	1.93	0.98	38.60%
10	Gentle aerobic exercise helps to control and maintain glucose (sugar) level	1	1-5	2.10	1.12	42.00%
11	Physical exercise is important for people with diabetes	1	1-5	2.69	1.39	53.80%

S No	Questions	Attitude score				
		No. of questions	Min –max score	Mean attitude score	SD	% of mean score
12	If I did not have diabetes I think I would be quite a different person	1	1-5	2.37	1.15	47.40%
13	There is little hope of leading a normal life with diabetes	1	1-5	1.98	0.98	39.60%
14	The proper control of diabetes involves a lot of sacrifice and inconvenience	1	1-5	2.59	1.40	51.80%
15	In general, nurses need to be more sympathetic in their treatment of people with diabetes	1	1-5	2.27	1.36	45.40%
16	Having diabetes over a long period changes the personality	1	1-5	2.17	1.14	43.40%
17	Diabetes can be controlled	1	1-5	2.25	1.12	45.00%
18	I believe I have adjusted well to having diabetes	1	1-5	2.16	0.98	43.20%
19	There is really nothing you can do if you have diabetes	1	1-5	2.03	1.00	40.60%
20	Forgot to take diabetic medication in the last week is my habit	1	1-5	2.25	1.14	45.00%
	Overall	20	20 - 100	44.08	12.44	44.08%

Table 9 shows each questionwise attitude score of lifestyle modification among type -2 diabetes mellitus clients. overall pretest percentage of attitude score is 44.08%

Table 4.10: Pretest Level of Attitude

Level of attitude	No. of clients	%
Poor	45	75.0%
Moderate	15	25.0%
Good	0	0.0%
Total	60	100%

Table No.6 shows the pretest level of attitude score among clients.

In general 75.0% of the clients are having poor attitude , 25.0% of them are having moderate attitude and none of them are having good attitude level of score.

Attitude score interpretation:

Min=1 Max=5 Total questions=20 Maximum marks= 100

S No.	Grade	Percentage	Marks
1.	Poor	76 – 100%	76.0-100.0
2.	Moderate	51 – 75%	51-75.0
3.	Good	0 – 50 %	≤ 50

OBJECTIVE 2: TO DETERMINE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON LEVELS OF KNOWLEDGE AND ATTITUDE REGARDING LIFE STYLE MODIFICATION AMONG TYPE-2 DIABETES MELLITUS CLIENTS

Table 4.11: Each domainwise post-test percentage of knowledge regarding lifestyle modification among type -2 diabetes mellitus clients.

Knowledge on	No. of questions	Min – Max score	Knowledge score		
			Mean	SD	% of mean score
Diet for diabetic	7	0 -7	5.45	1.36	77.86%
Exercise	5	0 - 5	3.97	1.02	79.40%
Foot care	5	0 – 5	3.78	.78	75.60%
Protective skin diseases	3	0 -3	2.43	.72	81.00%
Complication of diabetic	5	0 -5	4.25	.97	85.00%
TOTAL	25	0 - 25	19.88	2.67	79.52%

Table 11 shows each domain wise post-test percentage of knowledge of lifestyle modification among type -2 diabetes mellitus clients.. They are having maximum knowledge in **Complication of diabetic** (85.00%) and minimum knowledge score in **Foot care** (75.60%). Overall posttest percentage of knowledge score is 79.52%..

Table 4.12: Post-test Level of Knowledge

Level of knowledge	No. of clients	%
Inadequate knowledge	0	0.0%
Moderate knowledge	14	23.3%
Adequate knowledge	46	76.7%
Total	60	100.0%

Table No.12 shows the level of knowledge score oflifestyle modification among type -2 diabetes mellitus clients. In general noneoftheclients are having inadequate level of knowledge score and 23.3% of them are havingmoderate knowledge and 76.3% of them are having adequate knowledge.

Attitude score interpretation:

Min=1 Max=5 Total questions=20 Maximum marks= 100

S No.	Grade	Percentage	Marks
1.	Good	76 – 100%	76 – 100%
2.	Moderate	50 – 75%	50 – 75%
3.	Poor	0 – 50 %	0 – 50 %

Table 4.13: Post-test Mean Attitude Score

S No	Questions	Attitude score				
		No. of questions	Min –max score	Mean attitude score	SD	% of mean score
1	Diabetes medication can cure diabetes	1	1-5	4.51	1.54	90.20%
2	Diabetes medication should be taken for life	1	1-5	4.34	1.45	86.80%
3	You should stop taking your diabetes medication when you feel sick	1	1-5	3.8	0.96	76.00%
4	Poor control of diabetes could result in a greater chance of complications	1	1-5	4.47	1.75	89.40%
5	Eating less bread will make me lose weight	1	1-5	4.07	1.72	81.40%
6	Salty food will post vent my sugar levels from dropping	1	1-5	3.97	1.62	79.40%
7	Diabetic medication may cause swelling of the feet	1	1-5	4.1	1.08	82.00%
8	Sore feet are common in people with diabetes	1	1-5	4	0.98	80.00%
9	People with diabetes may have poor circulation of blood in the feet	1	1-5	3.83	0.99	76.60%
10	Gentle aerobic exercise helps to control and maintain glucose (sugar) level	1	1-5	4	1.15	80.00%
11	Physical exercise is important for people with diabetes	1	1-5	4.59	1.37	91.80%

S No	Questions	Attitude score				
		No. of questions	Min –max score	Mean attitude score	SD	% of mean score
12	If I did not have diabetes I think I would be quite a different person	1	1-5	4.27	1.17	85.40%
13	There is little hope of leading a normal life with diabetes	1	1-5	3.88	0.98	77.60%
14	The proper control of diabetes involves a lot of sacrifice and inconvenience	1	1-5	4.49	1.49	89.80%
15	In general, nurses need to be more sympathetic in their treatment of people with diabetes	1	1-5	4.17	1.46	83.40%
16	Having diabetes over a long period changes the personality	1	1-5	4.07	1.04	81.40%
17	Diabetes can be controlled	1	1-5	4.15	1.02	83.00%
18	I believe I have adjusted well to having diabetes	1	1-5	4.06	0.88	81.20%
19	There is really nothing you can do if you have diabetes	1	1-5	3.93	0.89	78.60%
20	Forgot to take diabetic medication in the last week is my habit	1	1-5	4.15	1.10	83.00%
	Overall	20	20 - 100	82.85	19.66	82.85%

Table 13 shows each questionwise posttest attitude score regarding lifestyle modification among type -2 diabetes mellitus clients. Overall posttest percentage of attitude score is 82.85%

Table 4.14: Post-test Level of Attitude

Level of attitude	No. of clients	%
Poor	0	0.0%
Moderate	11	18.3%
Good	49	81.7%
Total	60	100%

Table No.14 shows the posttest level of attitude score among clients.In general none of the clients are having poor attitude , 18.3% of them having moderate attitude and 81.7% of them are having good attitude level of score.

Table 4.15: Comparison of Pre-test and Post-test Knowledge Score

Knowledge on	Pretest		Posttest		Mean Difference	Student's pairedt-test
	Mean	SD	Mean	SD		
Diet for diabetic	3.20	.99	5.45	1.36	2.25	t=10.35 P=0.001 *** DF= 59 , Significant
Exercise	1.77	.72	3.97	1.02	2.20	t=12.99 P=0.001 *** DF= 59 , Significant
Foot care	1.87	.77	3.78	.78	1.91	t=14.19 P=0.001 *** DF= 59 , Significant
Protective skin diseases	1.23	.56	2.43	.72	1.20	t=11.34 P=0.001 *** DF= 59 , Significant
Complication of diabetic	2.45	.85	4.25	.97	1.80	t=10.84 P=0.001 *** DF= 59 , Significant
Total	10.52	2.78	19.88	2.67	9.36	t=19.27 P=0.001 *** DF= 59 , Significant

* significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

Table No 15 shows the comparison of pretest and posttest knowledge score regarding lifestyle modification among type -2 diabetes mellitus clients.

Knowledge regarding diet for diabetic, in pretest , clientsare having 3.20 score whereas in posttest they are having 5.45 score. Difference is 2.25. This difference is large and it shows statistically significant difference.

In exercise, in pretest , clients are having 1.77 score whereas in posttest they are having 3.97 score. Difference is 2.20. This difference is large and it shows statistically significant difference.

According to Foot care, in pretest , clients are having 1.87 score whereas in posttest they are having 3.78 score. Difference is 1.91. This difference is large and it shows statistically significant difference.

Protective skin diseases, in pretest , clients are having 1.23 score whereas in posttest they are having 2.43 score. Difference is 1.20. This difference is large and it shows statistically significant difference.

Complication of diabetic, in pretest , clients are having 2.45 score whereas in posttest they are having 4.25 score. Difference is 1.80. This difference is large and it shows statistically significant difference

Significance of difference between pretest and posttest score was calculated using student paired t-test.

Table 4.16: Comparison of Overall Knowledge Score & Attitude Score before and after structured Teaching Programme

	No. of clients	Pretest Mean± SD	Posttest Mean± SD	Mean difference Mean± SD	Student'Spaired-test
OverallKnowledge Score	60	10.52 ± 2.78	19.88 ± 2.67	9.36 ± 3.76	t=19.27 P=0.001*** DF = 59, significant
OverallAttitudeScore	60	44.08 ± 12.44	82.85 ± 19.66	38.77 ±16.15	t=28.82 P=0.001*** DF = 59, significant

* significant at P≤0.05 ** highly significant at P≤0.01 *** very high significant at P≤0.001

Table No.16 shows the comparison of overall knowledge/ attitude score before and after the administration of structured teaching programme.

Knowledge score, On an average, clients have improved their knowledge score from 10.52to 19.88 after the administration of structured teaching programme. Or we can say , in pretest they are able to answer only 11questions before administration STP, they are able to answer upto 20 questions. Due to health education intervention programme they are able to answer 9 more questions correctly. This difference is statistically significant. Statistical significance was calculated by using student's paired 't'test.

Attitude score, On an average, women have improved their attitude score from 44.08 to 82.85 after the administration of health education intervention programme. Due to health education intervention programme they are able to score 38.77attitude score more than pretest score. This difference is statistically significant. Statistical significance was calculated by using student's paired 't'test.

Table 4.17: Comparison of Pre-test and Post-test Level of Knowledge & Attitude Score

	Level	Pretest		Posttest		Generalized McNemar's test
		n	%	n	%	
Knowledge	Inadequate knowledge	46	76.7%	0	0.0%	$\chi 2=50.11$ P=0.001***(S)
	Moderate knowledge	14	23.3%	14	23.3%	
	Adequate knowledge	0	0.0%	46	76.7%	
	Total	60	100.0%	60	100.0%	
Attitude	Poor attitude	45	75.0%	0	0.0%	$\chi 2=52.32$ P=0.001***(S)
	Moderate attitude	15	25.0%	11	18.3%	
	Good attitude	0	0.0%	49	81.7%	
	Total	60	100%	30	100%	

***significant at $p \leq 0.001$ level

Table No.17 shows the pretest and post-test level of knowledge and attitude among women

Before intervention, 76.7% of the clientsare having inadequate level of knowledge score, 23.3% of them are having moderate level of knowledge score and none of them are having adequate level of knowledge score.

After intervention, none of the clients are having inadequate level of knowledge score, 23.3% of them are having moderate level of knowledge score and 76.7% of them are having adequate level of knowledge score.

Before intervention, 23.3% of the clientsare having poor level of attitude score, 76.7% of them are having moderate level of attitude score and none of them are having good level of attitude score.

After intervention, none of the clients are having poor level of attitude score, 18.3% of them are having moderate level of attitude score and 81.7% of them are having good level of attitude score.

Level of knowledge gain /attitude gain between pretest and posttest was calculated using GeneralisedMcNemar'schisquare test.

Table 4.18: Effectiveness of Structured Teaching Programme

		Max score	Mean score	Mean Difference of gain score with 95% Confidence interval	Percentage Difference of gain score with 95% Confidence interval
Knowledge	Pretest	25	10.52	9.36 (8.39 – 10.33)	37.44% (33.56% – 41.32%)
	Posttest	25	19.88		
Attitude	Pretest	100	44.08	38.77 (35.36 – 42.16)	38.77% (35.36% – 42.16%)
	Posttest	100	82.85		

Table No. 18 shows the effectiveness ofSTPamongthe clients on knowledge and attitude score.

Considering knowledge gain, on an average, in post-test after having STP, clients have gained 37.44% more knowledge score than pretest score. Considering attitude score, on an average, in posttest after having STP, clients have gained 38.77% more attitude score than pretest score

Differences and generalization of knowledge gain score /attitude gain score between pretest and posttest score was calculated using mean difference with 95% CI and proportion with 95% CI.

Table-4.19: Correlation between Knowledge Gain Score and Attitude Gain Score

	Correlation between	**Mean gain score± SD**	**Karl pearson correlation coefficient**	**Interpretation**
Knowledge Vs Attitude	Knowledge	9.36 ± 3.76	r=0.51 p=0.001*** significant	There is a significant, positive moderate correlation between knowledge and attitude score. It means knowledge increases their attitude alsowhich increases moderately.
	Attitude	38.77 ±13.16		

*** very high significant at P≤0.001

OBJECTIVE 3: TO FIND ASSOCIATION BETWEEN POST TEST LEVEL OF KNOWLEDGE AND ATTITUDE SCORESREGARDING LIFE STYLE MODIFICATION AND SELECTED DEMOGRAPHIC VARIABLES

Table 20: Association between Post-test Level of Knowledge Score and Demographic Variables

Demographic variables		Posttest Level of knowledge score						N	Chi square test
		Inadequate		Moderate		Adequate			
		n	%	n	%	n	%		
Age	25 -35 years	0	0.0%	0	0.0%	5	100.0%	5	$\chi2$=10.05 P=0.03* (S)
	35 -45 years	0	0.0%	2	10.5%	16	89.5%	19	
	45 -55 years	0	0.0%	5	21.7%	18	78.3%	23	
	55 -65 years	0	0.0%	5	50.0%	5	50.0%	10	
	>65 years	0	0.0%	2	66.7%	1	33.3%	3	
Sex	Male	0	0.0%	3	11.1%	24	88.9%	27	$\chi2$=4.09 P=0.04*(S)
	Female	0	0.0%	11	33.3%	22	66.7%	33	
Marital status	Single	0	0.0%	0	0.0%	3	100.0%	3	$\chi2$=2.41 P=0.29 (NS)
	Married	0	0.0%	14	26.4%	39	73.6%	53	
	Widowed	0	0.0%	0	0.0%	4	100.0%	4	
	Separated	0	0.0%	0	0.0%	0	0.0%	0	
	Divorced	0	0.0%	0	0.0%	0	0.0%	0	
Education	No formal education	0	0.0%	3	100.0%	3	0.0%	3	$\chi2$=14.02 P=0.01** (S)
	Primary	0	0.0%	5	33.3%	10	66.7%	15	
	Secondary	0	0.0%	4	23.5%	13	76.5%	17	
	Higher secondary	0	0.0%	1	10.0%	9	90.0%	10	
	College	0	0.0%	1	6.7%	14	93.3%	15	
Employment	Housewife	0	0.0%	5	22.7%	17	77.3%	22	$\chi2$=3.18 P=0.36 (NS)
	Employed	0	0.0%	3	25.0%	9	75.0%	12	
	Pensioner	0	0.0%	3	50.0%	3	50.0%	6	
	Own business	0	0.0%	3	15.0%	17	85.0%	20	
Nature of Work	Sedentary Work	0	0.0%	7	29.2%	17	70.8%	24	$\chi2$=2.33 P=0.31 (NS)
	Moderate Work	0	0.0%	6	26.1%	17	73.9%	23	
	Heavy Work	0	0.0%	1	7.7%	12	92.3%	13	

Demographic variables		Posttest Level of knowledge score						N	Chi square test
		Inadequate		Moderate		Adequate			
		n	%	n	%	n	%		
Monthly income	Rs.4000-5000	0	0.0%	2	25.0%	6	75.0%	8	$\chi 2$=4.01 P=0.26 (NS)
	Rs.5001-8000	0	0.0%	5	18.5%	22	81.5%	27	
	Rs.8001-10000	0	0.0%	2	14.3%	12	85.7%	14	
	Rs.10001 and Above	0	0.0%	5	45.5%	6	54.5%	11	
Type of family	Nuclear family	0	0.0%	7	22.6%	24	77.4%	31	$\chi 2$=1.72 P=0.42 (NS)
	Joint family	0	0.0%	6	31.6%	13	68.4%	19	
	Extended family	0	0.0%	1	10.0%	9	90.0%	10	

Table No 20 shows the association between posttest level of knowledge gain score and their demographic variables.Younger, males and more educated clients are having more knowledge gain score than others . Statistical significance was calculated using chi square test.

SECTION D: ASSOCIATION BETWEEN LEVEL OF KNOWLEDGE AND DEMOGRAPHIC VARIABLES REGARDING LIFE STYLE MODIFICATION AMONG PATIENTS WITH DIABETES MELLITUS

Table 4.21: Association between Knowledge Gain Score and Demographic Variables

Demographic variables		N	Knowledge gain score					
			Pretest		Posttest		Gain score= Post-Pre	
			Mean	SD	Mean	SD	Mean	SD
Age	25 -35 years	5	10.20	4.60	22.13	1.52	11.93	2.08
	35 -45 years	19	10.32	2.45	22.22	2.58	11.90	4.22
	45 -55 years	23	11.09	2.76	19.69	3.03	8.60	5.01
	55 -65 years	10	9.70	2.98	18.23	2.79	8.53	2.95
	>65 years	3	10.67	.58	17.67	1.73	7.00	2.20
Sex	Male	27	10.52	2.15	21.22	2.43	10.70	3.15
	Female	33	10.52	3.24	19.03	2.87	8.51	3.99
Marital status	Single	3	8.33	5.03	19.67	2.08	11.33	7.09
	Married	53	10.64	2.74	19.83	2.72	9.19	3.63
	Widowed	4	10.50	.58	20.75	2.75	10.25	3.30
	Separated	0	0.00	0.00	0.00	0.00	0.00	0.00
	Divorced	0	0.00.	0.00	0.00	0.00	0.00	0.00
Education	No formal education	3	13.33	3.51	19.60	2.00	6.27	4.73
	Primary	15	10.67	2.06	19.27	3.51	8.60	3.92
	Secondary	17	10.06	3.07	19.36	2.77	9.30	3.20
	Higher secondary	10	9.70	2.79	20.05	2.11	10.35	3.92
	College	15	10.87	2.88	22.87	1.67	12.00	3.72

Demographic variables		N	Knowledge gain score					
			Pretest		Posttest		Gain score= Post-Pre	
			Mean	SD	Mean	SD	Mean	SD
Employment	Housewife	22	10.86	2.66	19.86	3.09	9.00	3.52
	Employed	12	11.33	1.87	19.83	2.55	8.50	2.91
	Pensioner	6	10.17	1.17	18.33	2.73	8.17	2.14
	Own business	20	9.75	3.55	20.40	2.19	10.65	4.63
Nature of Work	Sedentary Work	24	10.75	3.01	19.54	2.86	8.79	3.83
	Moderate Work	23	10.57	3.15	19.83	2.92	9.26	4.26
	Heavy Work	13	10.00	1.47	20.62	1.71	10.62	2.43
Monthly income	Rs.4000-5000	8	9.63	.92	20.37	2.33	10.75	2.25
	Rs.5001-8000	27	11.11	3.03	20.59	3.00	9.48	3.93
	Rs.8001-10000	14	10.21	2.78	19.21	1.76	9.00	3.31
	Rs.10001 and Above	11	10.09	3.05	18.64	2.62	8.55	4.82
Type of family	Nuclear family	31	10.58	3.03	19.61	2.42	9.03	3.55
	Joint family	19	10.42	2.32	20.00	3.35	9.58	3.85
	Extended family	10	10.50	3.06	20.50	2.01	10.00	4.50

Table No.21 shows the association between knowledge gain score and their demographic variablesYounger, males and more educated clients are having more knowledge gain score than others.Statistical significance was calculated using one-way analysis of variance F-test and student independent t-test.

SECTION E: ASSOCIATION BETWEEN LEVEL OF ATTITUDE AND DEMOGRAPHIC VARIABLES REGARDING LIFE STYLE MODIFICATION AMONG PATIENTS WITH DIABETES MELLITUS

Table 4.22: Association between Post-test Level of Attitude Score and Demographic Variables

Demographic variables		Posttest Level of Attitude score						N	Chi square test
		Poor		Moderate		Good			
		n	%	n	%	N	%		
Age	25 -35 years	0	0.0%	0	0.0%	5	100.0%	5	$\chi 2$=11.12 P=0.05* (S)
	35 -45 years	0	0.0%	1	5.3%	18	94.7%	19	
	45 -55 years	0	0.0%	4	17.4%	19	82.6%	23	
	55 -65 years	0	0.0%	4	40.0%	6	60.0%	10	
	>65 years	0	0.0%	2	66.7%	1	33.3%	3	
Sex	Male	0	0.0%	2	7.4%	25	92.6%	27	$\chi 2$=3.91 P=0.05*(S)
	Female	0	0.0%	9	27.3%	24	72.7%	33	
Marital	Single	0	0.0%	0	0.0%	3	100.0%	3	$\chi 2$=1.77 P=0.49 (NS)
	Married	0	0.0%	11	20.8%	42	79.2%	53	
	Widowed	0	0.0%	0	0.0%	4	100.0%	4	
	Separated	0	0.0%	0	0.0%	0	0.0%	0	
	Divorced	0	0.0%	0	0.0%	0	0.0%	0	
Education	No formal education	0	0.0%	0	0.0%	3	100.0%	3	$\chi 2$=5.69 P=0.22 (NS)
	Primary	0	0.0%	5	33.3%	10	66.7%	15	
	Secondary	0	0.0%	2	11.8%	15	88.2%	17	
	Higher secondary	0	0.0%	3	30.0%	7	70.0%	10	
	College	0	0.0%	1	6.7%	14	93.3%	15	
Employment	Housewife	0	0.0%	3	13.6%	19	86.4%	22	$\chi 2$=5.62 P=0.13 (NS)
	Employed	0	0.0%	3	25.0%	9	75.0%	12	
	Pensioner	0	0.0%	3	50.0%	3	50.0%	6	
	Own business	0	0.0%	2	10.0%	18	90.0%	20	

Demographic variables		Posttest Level of Attitude score						N	Chi square test
		Poor		Moderate		Good			
		n	%	n	%	N	%		
Nature of Work	Sedentary Work	0	0.0%	7	29.2%	17	70.8%	24	$\chi 2$=4.81 P=0.09(NS)
	Moderate Work	0	0.0%	4	17.4%	19	82.6%	23	
	Heavy Work	0	0.0%	0	0.0%	13	100.0%	13	
Monthly income	Rs.4000-5000	0	0.0%	4	50.0%	4	50.0%	8	$\chi 2$=7.98 P=0.05* (S)
	Rs.5001-8000	0	0.0%	5	18.5%	22	81.5%	27	
	Rs.8001-10000	0	0.0%	2	14.3%	12	85.7%	14	
	Rs.10001 and Above	0	0.0%	0	0.0%	11	100.0%	11	
Type of family	Nuclear family	0	0.0%	6	19.4%	25	80.6%	31	$\chi 2$=3.07 P=0.21 (NS)
	Joint family	0	0.0%	5	26.3%	14	73.7%	19	
	Extended family	0	0.0%	0	0.0%	10	100.0%	10	

Table No.22 shows the association between post-test level of attitude gain score and their demographic variables. Younger,males and more monthly income clients are having more knowledge gain score than others . Statistical significance was calculated using chi square test.

Table 4.23: Association between Attitude Gain Score and Demographic Variables

Demographic variables		N	Attitude gain score						One Way ANOVA F-test/t-test
			Pretest		Posttest		Gain score=Post-Pre		
			Mean	SD	Mean	SD	Mean	SD	
Age	25 -35 years	5	42.40	12.03	86.73	6.07	44.33	8.33	F=2.59 P=0.05*(S)
	35 -45 years	19	42.74	9.80	86.74	7.89	44.00	11.96	
	45 -55 years	23	45.70	7.41	80.30	8.94	34.60	13.25	
	55 -65 years	10	45.20	12.19	77.53	9.05	32.33	12.95	
	>65 years	3	44.67	2.31	76.67	6.93	32.00	9.20	
Sex	Male	27	43.85	8.34	84.04	7.94	44.04	9.45	t=2.27 P=0.03*(S)
	Female	33	44.27	9.94	81.88	8.38	36.93	13.76	
Marital status	Single	3	39.33	11.37	81.67	8.33	42.33	19.01	F=0.25 P=0.77(NS)
	Married	53	44.43	9.40	82.75	8.23	38.32	13.07	
	Widowed	4	43.00	3.83	85.00	9.52	42.00	13.22	
	Separated	0	.	.	.	.	.	.	
	Divorced	0	.	.	.	.	.	.	
Education	No formal education	3	53.33	14.05	83.00	8.00	29.67	18.90	F=2.00 P=0.11(NS)
	Primary	15	45.07	7.92	80.67	9.43	35.60	12.59	
	Secondary	17	41.24	10.40	86.88	8.89	45.65	13.45	
	Higher secondary	10	43.80	7.69	79.70	7.53	35.90	12.78	
	College	15	44.67	8.54	82.53	5.05	37.87	10.75	
Employment	Housewife	22	44.05	9.08	82.23	8.64	38.18	13.77	F=0.33 P=0.80(NS)
	Employed	12	46.33	7.33	83.25	8.67	36.92	11.18	
	Pensioner	6	42.00	5.51	78.83	8.04	36.83	8.66	
	Own business	20	43.40	11.24	84.50	7.53	41.10	15.05	

Demographic variables		N	Attitude gain score						One Way ANOVA F-test/t-test
			Pretest		Posttest		Gain score=Post-Pre		
			Mean	SD	Mean	SD	Mean	SD	
Nature of Work	Sedentary Work	24	44.33	10.59	81.58	8.09	37.25	13.64	F=1.07 P=0.35(NS)
	Moderate Work	23	44.74	9.32	82.70	8.95	37.96	13.96	
	Heavy Work	13	42.46	6.01	85.46	6.84	43.00	10.58	
Monthly income	Rs.4000-5000	8	42.00	4.28	85.13	8.04	43.13	8.63	F=2.78 P=0.05*(S)
	Rs.5001-8000	27	45.15	9.39	85.04	8.85	39.89	13.82	
	Rs.8001-10000	14	42.29	11.50	80.57	5.54	38.29	13.86	
	Rs.10001 and Above	11	45.27	8.40	78.73	7.98	33.45	13.14	
Type of family	Nuclear family	31	43.77	9.86	82.29	7.78	38.52	13.19	F=0.03 P=0.97(NS)
	Joint family	19	44.11	9.05	82.79	9.51	38.68	13.61	
	Extended family	10	45.00	7.96	84.70	7.21	39.70	13.53	

Table No.23 shows the association between knowledge gain score and their demographic variablesYounger, males and more monthly income clients are having more knowledge gain score than others.Statistical significance was calculated using one-way analysis of variance F-test and student independent t-test.

CHAPTER-V
DISCUSSION

The present study was designed to evaluate the effectiveness of structure teaching program on levels of knowledge and attitude regarding life style modification among patients with diabetes mellitus at Rajiv Gandhi Government General Hospital ,Chennai .The research design used was pre experimental, one group pre and the other post-test design. Non probability, purposive sampling was adopted to select 60 samples. Structured questionnaire was used to assess the levels of knowledge and attitude regarding life style modification. Pre-test was conducted to study samples, then administered structure teaching program regarding life style modification was given. The post test was conducted by the researcher after 2 weeks.

The first objective of the study was to assess the pre test levels of knowledge and attitude regarding life style modification among patients with diabetes mellitus.

The data identified from the present study shows that the pre test mean value of knowledge was 10.52 and pre test mean value of attitude was 44.08 regarding life style modifications. It shows that the levels of knowledge and attitude decreased among patient with diabetes mellitus.

This study was supported by **Henry I. Okonta(2014)**whosought to establish the knowledge, attitude and practice regarding lifestyle modification amongst type 2 diabetic patients. Of the 217 participants, 154 (71%) were obese and 15 (7%) were morbidly obese. The majority of respondents (92.2%) had poor knowledge of the benefits of exercise, weight loss and a healthy diet. What is interesting is that the majority (97.7%) demonstrated bad practices in relation to lifestyle

modifications, although over four-fifths (84.3%) had a positive attitude toward healthy lifestyle modifications.

This study was supported by **Dr. Deepak N. Parchwani, (2013)** Gujarat Adani Institute of Medical Sciences, Bhuj, Gujarat, A recommendation to increase physical activity was beneficial (0.14% HbA1c reduction; ***P*** = 0.12), but was not bringing significant declines in HbA1c, whereas, structured exercise training is associated with a significant HbA1c decline of 0.59%. (***P*** = 0.030). In a subgroup analysis limited to participants with a baseline HbA1c value > 7%, both the unstructured (0. 48%; ***P*** = 0.04) and structured exercise training (0.77%; ***P*** < 0.01) groups experienced significant decline in HbA1c the control, whereas among the participants with baseline hemoglobin A1c values less than 7%, significant reduction occurred only in the structured exercise training group. Changes in blood pressure; total cholesterol, HDL-cholesterol (high-density lipoprotein), LDL-cholesterol (low-density lipoprotein) and the atherogenic index factors did not statisticallyand significantly differ within baseline to follow-up and among the groups.

The second objective of the study was to determine the effectiveness of health promotion program on levels of knowledge and attitude regarding life style modification among patients with diabetes mellitus.

Data identified from the present study shows that health promotion program on levels of knowledge and attitude regarding life style modification was effective among diabetes patients. .They are having maximum knowledge in **Complication of diabetic** (85.00%) and minimum knowledge score in **Foot care** (75.60%). Overall posttest percentage of knowledge score is 79.52%.

This study was also supported by **SHRESTHA(2010)** where he assessed the lifestyle changes on prevention of the risk for developing diabetic complications. Randomized intervention studies have shown that changes in diet and physical activity can protect against diabetes complications. Effectiveness of a lifestyle intervention programme on glucose tolerance in Dutch subjects with impaired glucose tolerance (IGT) was undertaken. A total of 102 subjects were selected andrandomized into two groups. Subjects in the intervention group received regular dietary advice and were stimulated to lose weight and to increase their physical activity. The control group received only brief information about the beneficial effects of a healthy diet and increased physical activity. Body weight loss after 1year was higher in the intervention group. The 2h blood glucose concentration decreased 0.8 ± 0.3 mmol/l in the intervention group and increased 0.2 ± 0.3 mmol/lin the control group ($P<0.05$). Body weight loss and increased physical fitness were the most important determinants of improved glucose tolerance and insulin sensitivity. Study suggested that lifestyle intervention programme according to general recommendations is effective and induces beneficial changes in lifestyle, which improve glucose tolerance in subjects with IGT. Body weight loss and increased physical fitness were the most important determinants of improved glucose tolerance and insulin sensitivity.

The third objective of the study was to determine the association between post test levels of knowledge and attitude regarding life style modification and selected demographic variables among patients with diabetes mellitus.

The data identified from the present study shows that the chi square values of selected demographic variables on post test levels of knowledge about effectiveness of health promotion program among patient with diabetes mellitus based on age, gender, religion, educational status, occupation, residential area, sources of information was

associated, at level p <0.05. Whereas the demographic variable like, marital status, monthly income in INR, type of family, type of food, any family history of diabetes mellitus, previous knowledge are non significant. The chi square values of selected demographic variables on post test level of attitude about effectiveness of health promotion program among patient with diabetes mellitus based on age, gender, religion, marital status, educational status, occupation, monthly income in INR, type of family, residential area, type of food, any family history of diabetes mellitus, previous knowledge and sources of information had no significant p < 0.05 level. H1,H2 accepted.

This study was also supported by **LEE JK 2014** where he conducted a study on the effects of a coaching program on comprehensive lifestyle modification for women with diabetes mellitus. The research design for this study was a non-equivalent control group quasi-experimental study. Participants in this study were 34 for the control group and 34 for the experimental group. The experimental group participated in the coaching program on comprehensive lifestyle modification. The program consisted of education, small group coaching and telephone coaching over 4 weeks. Group 1(n = 43) and Group 2-standard care group (n = 32).There were significant improvements (p< 0.05) in self-care behavior, and decreases in 59 depression, fasting blood sugar and HbA1C in the experimental group compared to the control group. However, no significant differences were found between the two groups for knowledge of diabetes mellitus. The Coaching Program on Comprehensive Lifestyle Modification used in this study was found to be effective in improving self-care behavior and reducing depression, fasting blood sugar and HbA1C, and is recommended for use in clinical practice as an effective nursing intervention for women with diabetes.

CHAPTER – VI
SUMMARY AND RECOMMENDATIONS

In this chapter, the summary of the study, conclusions, implications and recommendations for further researches are presented.

6.1 SUMMARY

The study was conducted to determine effectiveness of health promotion program on levels of knowledge and attitude regarding life style modification among patients with diabetes mellitus at Rajiv Gandhi Government General Hospital, Chennai. A pre-experimental one group pre-test and post test design was used for this study .The conceptual framework of this research was based on modified Kolcaba's theory of comfort.The instrument used for data collection was structured question to assess the levels of knowledge and attitude of the samples which included a pre test and post test measure regarding life style modification. 60 samples were selected by purposive sampling technique. Descriptive statistics (frequency, percentage, mean , standard deviation) and inferential statistics (paired 't' test and chi- square) were usedto analyze the data to test the study hypotheses.

THE STUDY FINDINGS SUMMARIZED BELOW:

The effectiveness of structure teaching program on life style modification was assessed by comparing pre and post tests scores. Finding of the study showed that the pre-test mean value was 10.52 and after structure teaching program the post-test mean value was 32. The mean difference was 9.36 for levels of knowledge. The computed 't'value (t=14) was higher than the table value (3.66). This shows that structure teaching program was effective in improving levels of knowledge regarding life style modification among patients with diabetes mellitus .The chi-square values of demographic variables on post test levels of knowledge about effectiveness of structure teaching

program among patients with diabetes mellitus shows age, gender, religion, educational status, occupation, residential area, sources of information as significant, at level p <0.05, whereas the demographic variable like, marital status, monthly income in INR, type of family, type of food, any family history of diabetes mellitus are non significant.

The pre-test mean value was 44.08 and post-test mean value was 82.85. The mean difference was 38.77, the computed t test =19.27. This shows that health promotion program is effective in improving levels of attitude regarding life style modification among patient with diabetes mellitus. The 'chi' square values of selected demographic variables on post test levels of knowledge about effectiveness of health promotion program among patient with diabetes mellitus shows age, gender, religion, marital status, educational status,occupation, Monthly income in INR, type of family, residential area, type of food, any family history of diabetes mellitus and sources of information are non significant.

6.2 IMPLICATION

6.2.1 Nursing Practice

- Nurses can be trained to assess the patients and provide health education program.
- Nurses can be motivated for routine documentation of patient condition after implementation of life style modification program.
- Nurses can be trained as a diabetic educator.

6.2.2 Nursing Education

- The practice and benefits of structure teaching program regarding life style modification could be introduced in the curriculum and procedure manual.

- Nurse educators can conduct in-service education on life style modification on diabetes mellitus to staff nurses.

6.2.3 Nursing Administration

Nurse administrator can formulate policies and protocols on educating about life style modification to all patients with diabetes.

6.2.4 Nursing Research

Future studies can be conducted on effect of structure teaching program regarding prevention of diabetic complication among patients with diabetes mellitus.

6.3 RECOMMENDATION

On the basis of the study that had been conducted, suggestions are given for future studies:

- A similar study can be replicated on a subject with different demographic characteristics in different settings.
- A comparative study can be done on rural and urban patients.
- A similar study can be conducted with large sample.

6.4 LIMITATION

The study is limited to assessment of knowledge as correct responses made to the items in the knowledge

- questions and structured teaching programme
- selected samples from diabetology outpatient department, Rajiv Gandhi Govt. General Hospital, Chennai-3

6.5 CONCLUSION

The majority of the patients undergoing structure teaching program showed improvement in levels of knowledge regarding life style modification. Based on the study finding, there was significant increase in the levels of knowledge among patients with diabetes. The majority of the patients undergoing structure teaching program showed improvement in levels of attitude regarding life style modification. Based on the study finding, there was significant increase in the levels of attitude among patients with diabetes. The finding of the study was consistent with the review of literature supports. The findings may be generalized to the patients with diabetes mellitus.

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COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE CHENNAI-3
INTERVIEW SCHEDULE (ENGLISH)

QUESTIONNAIRE
SECTION-A: SOCIO DEMOGRAPHICS

Demographic profile of patients attending type 2 diabetes mellitus outpatient department RGGGH Chennai-3

Purpose:-This profile is used to measure the demographic variable of patient attending diabetology out patient department such as sex, marital status, education, employment status, nature of work, family income, type of family.

Instructions: Read the following items carefully and select one correct response by placing appropriate tick mark space provide. Please be frank in answering it will kept confidential are anonymity will be maintained.

1) Sex
   a) Male ☐
   b) Female ☐

2) Age Group
   a) 25-35 Years ☐
   b) 35-45 Years ☐
   c) 45-55 Years ☐
   d) 55-65 Years ☐
   e) 65 Years and above ☐

3) Marital Status
   a) Single ☐
   b) Married ☐
   c) Divorced ☐
   d) Separated ☐
   e) Widowed ☐

4) Highest Educational Level
   a) No formal education ☐
   b) Primary ☐
   c) Secondary ☐
   d) College ☐

5) Employment Status

a) Unemployed ☐
b) Employed ☐
c) Pensioner ☐
d) Own Business ☐

6) Nature of Work

a) Sedentary Work ☐
b) Moderate Work ☐
c) Heavy Work ☐
d) Unemployed/ Home Maker ☐

7) Family income per month

a) Rs.4000-5000 ☐
b) Rs.5001-8000 ☐
c) Rs.8001-10000 ☐
d) Rs.10001 and Above ☐

8) Type of Family

a) Nuclear ☐
b) Joint ☐
c) Extended ☐

CLINICAL VARIABLES

1) Presence of Co-morbidity

a) Hypertension ☐
b) Coronary Artery Disease ☐
c) Chronic Kidney Disease ☐
d) Others ☐

2) If yes, do you take treatment rgularly?

a) Yes ☐
b) No ☐

3) What type of treatment

a) Allopathic ☐
b) Ayush ☐
c) Others ☐
d) Not taking treatment ☐

4) Diagnosed to have diabetic since

a) <2 Weeks ☐
b) <1 month ☐

5) Do yuou perform exercise

a) Yes ☐
b) No ☐

6) BMI

a) Underweight ☐
b) Normal ☐
c) Under weight ☐
d) Obese ☐

7) Blood Pressure level

i) Systolic

a) 0-140 mmHg ☐
b) ≥140 ☐

ii) Diastolic

a) 0-90 mmHg ☐
b) ≥90 ☐

SMOKING

1) History of Smoking

a) Yes ☐
b) No ☐

2) Duration of Smoking

a) >1 Year ☐
b) 1-2 years ☐
c) More than 2 Years ☐

3) Smoking of cigarettes per day

a) 1-5 day ☐

b) 6-10 day ☐

c) More than 1 Pocket ☐

ALCOHOLISM

4) History of Alcoholism

a) Yes ☐

b) No ☐

If, Yes,

5) Period of consuming alcohol

a) >1 Year ☐

b) 1-3 Years ☐

c) More than 3 Years ☐

6) Consumption fo Alcohol per day

a) >90ml/ day ☐

b) 90-180 ml/day ☐

c) More than 2 years ☐

WEIGHT

7) Average body weight

a) 50-60 Kgs ☐

b) 60-70 Kgs ☐

c) 70-80 Kgs ☐

8) Waist- Hip Ratio (Men)

a) <0.90 (Normal) ☐

b) 0.90-0.99 (Over Weight) ☐

c) >1.00 (Obesity) ☐

9) Waist- Hip Ratio (Female)

a) <0.80 (Normal) ☐

b) 0.80-0.84 (Over Weight) ☐

c) >0.85 (Obesity) ☐

SECTION-C
STRUCTURED QUESTIONNAIRE ON LIFE STYLE MODIFICATIONS FOR PATIENTS WITH DM

1) Life Style Modification Means
   a) Accepting new trends towards Health ☐
   b) Altering long term habits and maintaining the new behaviour ☐
   c) Changing the attitude and perceptions towards life ☐

2) The common food items to be restricted by diabetic clients are
   a) Butter Milk ☐
   b) Fruits ☐
   c) Tubers ☐

3) Type of food you can take without restrictions
   a) Chocolate ☐
   b) Yellow Banana ☐
   c) Green Leafy Vegetables ☐

4) The ideal alternative fruit that diabetic client can take instead of an one small apple
   a) ½ Cup Orange Juice ☐
   b) 1 Mango ☐
   c) 1 Sapotta ☐

5) You will continue the diabeitc diet
   a) 10 Years ☐
   b) Life Long ☐
   c) 1 Year ☐

6) One gram of carbohydrate provide energy of
   a) 4 Kcal ☐
   b) 6 Kcal ☐
   c) 2 Kcal ☐

7) Type fo cooling oil can be used for client with diabetes mellitus
   a) Sunflower Oil ☐
   b) Coconut Oil ☐
   c) Palm Oil ☐

8) The exercise are important for diabetic clients
   a) To maintain wellness ☐
   b) To maintain social relationship ☐
   c) To improve insulin utilization ☐

9) The following exercises are most beneficial to the diabetic clients
   a) Walking and running ☐
   b) Cycling, Walking ☐
   c) Weight Lifting and Swimming ☐

10) The diabetic client should do exercises in a week to obtain the maximum benefit
   a) 5 Days ☐
   b) 3 Days ☐
   c) 2 Days ☐

11) The danger sign during exercise
   a) unconsciousness ☐
   b) Palpitation ☐
   c) Back pain ☐

12) You can exercise at a time to get maximum benefit for
   a) 40 minutes ☐
   b) 60 minutes ☐
   c) 30 minutes ☐

13) Precautions to be followed to prevent ulcer
   a) Check water temperature with your feet ☐
   b) Daily soak your feet in water ☐
   c) Protect your feet from hot and cold ☐

14) You will self examine your feet by

a) Looking for any cracks and in growing toe nails ☐
b) Looking for colour changes in the particular area ☐
c) All the above ☐

15) If you have a slight injury on your toe or feet, you will

a) Go to the doctor ☐
b) Use home remedies ☐
c) Ignore it ☐

16) You can protect your feet from injuries

a) Cutting toe nails deep ☐
b) Wear slippers at all time ☐
c) By keeping feet dry ☐

17) To trim you nails

a) Straight across ☐
b) Cut the corner edges ☐
c) Concave shape ☐

18) The common skin infection in diabetes

a) Boiler ☐
b) Pruritis ☐
c) Scabies ☐

19) You can prevent skin infection

a) Daily bath and clean dress ☐
b) Clean environment ☐
c) All of the above ☐

20) The common site for infection in diabetes is

a) Ear ☐
b) Foot ☐
c) Stomach ☐

21) The acute complication of diabetes mellitus

a) Hypoglycemia ☐
b) Kidney diseases ☐
c) Retinopathy ☐

22) Identify the delayed complications of chronic diabetes mellitus

a) Cardiac problem ☐
b) Eye problem, Neuropathy ☐
c) All of the above ☐

23) The meaning of Somogyi effect

a) Elevated blood glucose at bed time ☐
b) Progressive rise in blood glucose ☐
c) Early morning glucose level begin to rise ☐

24) If diabetic client take more insulin, they will have

a) Increased sweating and giddiness ☐
b) Vomiting & Diarrhoea ☐
c) Sudden increase in blood sugar ☐

25) The precaution to be taken to prevent complications

a) Regular checkup ☐
b) Diet and drugs, exercise ☐
c) All of the above ☐

SECTION- C: KEY ANSWERS

Question No	Answer
1	b
2	b
3	c
4	a
5	b
6	a
7	a
8	c
9	b
10	a
11	b
12	c
13	c
14	c
15	a
16	b
17	a
18	b
19	c
20	b
21	a
22	c
23	c
24	a
25	c

ஒப்பீடு அளவுகோல்- நீரிழிவு நோய்க்கான வாழ்க்கைமுறை மற்றும் அவர்களுடைய மனோபாவம்

வ. எண்.	அறிக்கை	தீவிரமாய் அங்கீகரி	அங்கீகரி	நடுநிலை	புறக்கணி	தீவிரமாய் புறக்கணி
		5	4	3	2	1
1.	நீரிழிவு மருந்துகளால் நீரிழிவு நோயை குணப்படுத்த முடியும்					
2.	நீரிழிவு மருந்துகளை வாழ்க்கையில் உட்கொள்ள வேண்டும்					
3.	நீ நோய்வாய்பட்டிருக்கும் போது நீரிழிவு மருந்துகளை எடுத்துக்கொள்ள வேண்டும்					
4.	மோசமான நீரிழிவு கட்டுப்பாட்டினால் சிக்கல் அதிகம் ஏற்பட வாய்ப்புள்ளது					
5.	குறைந்த ரொட்டி சாப்பிடுவதன் மூலம் என் உடல் எடையை இழக்கச் செய்வேன்					
6.	உப்பு உணவு உட்கொள்ளுதல் மூலம் என் சர்க்கரை அளவு குறைவதை தடுக்கிறது					
7.	நீரிழிவு மாத்திரை எடுப்பதனால் கால்களில் வீக்கம் இருக்கும்					
8.	பொதுவாக நீரிழிவு நோயாளிகளுக்கு கால் பாதங்களில் புண் ஏற்படும்					
9.	நீரிழிவு நோயினால் பாதிக்கப்பட்டவர்கள் கால்களில் இரத்த ஓட்டம் குறைவாக இருக்கும்					
10.	மென்மையான வளிமண்டல உடற்பயிற்சி குளுக்கோஸ் அளவை கட்டுப்படுத்தி பராமரிக்க உதவும்					
11.	நீரிழிவு நோயாளிகளுக்கு உடல் பயிற்சி முக்கியம்					
12.	எனக்கு நீரிழிவு நோயில்லை என்றால் வித்தியாசமான நபர் போல் இல்லாமல் இருப்பேன்					
13.	நீரிழிவு நோயுடன் ஒரு சாதாரண வாழ்க்கை வாழ சிறிய நம்பிக்கை உள்ளது					
14.	நீரிழிவு சரியான கட்டுப்பாட்டில் வைத்திருக்கும் போது தியாகம் மற்றும் சிரமத்திற்கு நிறை ஈடுபடுத்துகிறது					

வ. எண்.	அறிக்கை	தீவிரமாய் அங்கீகரி	அங்கீகரி	நடுநிலை	புறக்கணி	தீவிரமாய் புறக்கணி
		5	4	3	2	1
15.	நீரிழிவு நோயால் பாதிக்கப்பட்ட மக்களுக்கு பொதுவாக நாங்கள் மிகவும் அனுதாபம் காட்ட வேண்டும்					
16.	நீரிழிவு நோயாளிகளுக்கு மாற்றங்கள் நீண்டகாலமாக இருக்கும்					
17.	நீரிழிவு நோயை கட்டுப்படுத்த முடியும்					
18.	நீரிழிவு நோயாளிகள் நான் சொல்வதை செய்வார்கள் என நம்புகிறேன்					
19.	நீரிழிவு நோய் இருந்தால் என்னால் எதுவும் செய்ய முடியாது					
20.	என்னுடைய பழக்கத்தினால் கடந்த வாரம் நீரிழிவு மருந்தை உட்கொள்ள மறக்கவில்லை.					

ATTITUDE SCALE

S.No		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
		5	4	3	2	1
1	Diabetes medication can cure diabetes					
2	Diabetes medication should be taken for life					
3	You should stop taking your diabetes medication when you feel sick					
4	Poor control of diabetes could result in a greater chance of complications					
5	Eating less bread will make me lose weight					
6	Salty food will prevent my sugar levels from dropping					
7	Diabetic medication may cause swelling of the feet					
8	Sore feet are common in people with diabetes					
9	People with diabetes may have poor circulation of blood in the feet					
10	Gentle aerobic exercise helps to control and maintain glucose (sugar) level					
11	Physical exercise is important for people with diabetes					
12	If I did not have diabetes I think I would be quite a different person					
13	There is little hope of leading a normal life with diabetes					
14	The proper control of diabetes involves a lot of sacrifice and inconvenience					
15	In general, nurses need to be more sympathetic in their treatment of people with diabetes					
16	Having diabetes over a long period changes the personality					
17	Diabetes can be controlled					
18	I believe I have adjusted well to having diabetes					
19	There is really nothing you can do if you have diabetes					
20	Forgot to take diabetic medication in the last week is my habit					

நேர்காணல்
வினாத்தாள்
சுய குறிப்புகள்

1) பாலினம்

அ) ஆண் ☐

ஆ) பெண் ☐

2) வயது

அ) 25-35 வயது ☐

ஆ) 36-45 வயது ☐

இ) 46-55 வயது ☐

ஈ) 56-65 வயது ☐

உ) 65 வயதுக்கு மேல் ☐

3) திருமண விவரம்

அ) தனியர் ☐

ஆ) திருமணம் ஆனவர் ☐

இ) விவாகரத்து பெற்றவர் ☐

ஈ) துணையை பிரிந்தவர் ☐

உ) விதவை ☐

4) கல்வி விவரம்

அ) முறை சாரா கல்வி ☐

ஆ) தொடக்கக் கல்வி ☐

இ) மேல்நிலைக் கல்வி ☐

ஈ) கல்லூரி கல்வி ☐

5) வேலை விவரம்

அ) வேலை இல்லாதவர் ☐

ஆ) வேலையில் இருப்பவர் ☐

இ) ஓய்வூதியக்காரர் ☐

ஈ) சுய வியாபாரம் ☐

6) பணியின் தன்மை

அ) கடின உழைப்பாளர் ☐

ஆ) மிதமான உழைப்பாளர் ☐

இ) மிக கடின உழைப்பாளர் ☐

ஈ) பணியில் இல்லை/ வீட்டில் இருப்பவர் ☐

7) மாத வருமானம்

அ) ரூ.4000 முதல் 5000 வரை ☐

ஆ) ரூ.5001 முதல் ரூ.8000 வரை ☐

இ) ரூ.8001 முதல் ரூ.10000 வரை ☐

ஈ) ரூ.10001க்கு மேல் ☐

8) குடும்ப விவரம்

அ) தனிக்குடும்பம் ☐

ஆ) கூட்டுக்குடும்பம் ☐

இ) பாரம்பரிய குடும்பம் ☐

நோய் குறித்த விவரங்கள்

9) ஆரோக்கியமமில்லாத கூட்டு நோய் குறித்த விவரங்கள்

அ) இரத்தக் கொதிப்பு ☐

ஆ) இருதய நோய் ☐

இ) சிறுநீரக நோய் ☐

ஈ) மற்றவை ☐

10) ஆம் எனில், தொடர்ந்து சிகிச்சை எடுத்துக்கொள்கிறார்களா?

அ) ஆம் ☐

ஆ) இல்லை ☐

11) எந்த வகையான சிகிச்சை?

அ) அலோபதி ☐

ஆ) ஆயுஷ் ☐

இ) மற்றவை ☐

ஈ) சிகிச்சை முறை இல்லை ☐

12) எப்பொழுதிலிருந்து இந்நோயால் உங்களுக்கு உள்ளது

அ) 2 வாரங்களுக்கு மேல் ☐

ஆ) 1 மாதங்களுக்கு மேல் ☐

13) நீங்கள் உடற்பயிற்சி செய்வீர்களா?

அ) ஆம் ☐

ஆ) இல்லை ☐

14) உடல் எடை பி.எம்.ஐ?

அ) மிக குறைந்த ☐

ஆ) சராசரி ☐

இ) மிக அதிகமான அளவு ☐

ஈ) பருமனானவர் ☐

15) இரத்த அழுத்தம்

இருதய சுருங்க நிலை அழுத்தம்

அ) 0-140 மெர்குரி ☐

ஆ) 140க்குமேல் மெர்குரி ☐

இருதய விரிந்த நிலை அழுத்தம்

அ) 0-90 மெர்குரி ☐

ஆ) 90க்கு மேல் மெர்குரி ☐

புகைபிடித்தல் பிடித்தல் பழக்கம்

1) புகைபிடித்தல் விவரம்

அ) ஆம் ☐

ஆ) இல்லை ☐

2) புகை பிடித்த காலம்

அ) 1 வருடத்திற்கு குறைவாக ☐

ஆ) 1-2 வருடம் ☐

இ) 2 வருடத்திற்கு மேல் ☐

3) ஒரு நாளைக்கு புகைக்கும் சிகரெட் அளவு

அ) 1-5 ☐

ஆ) 6-10 ☐

இ) 10க்கு மேல் ☐

மது அருந்தும் பழக்கம்

4) மது அருந்திய விவரம்

அ) ஆம் ☐

ஆ) இல்லை ☐

ஆம் எனில், குறிப்பிடுக

5) மது அருந்திய காலம்

அ) 1 வருத்திற்கும் குறைவாக ☐

ஆ) 1-3 வருடம் ☐

இ) 3 வருடத்திற்கு மேல் ☐

6) ஒரு நாளைக்கு மது அருந்தும் அளவு

அ) 90 மி.லிக்கு குறைவாக ☐

ஆ) 90-180 மி.லி ☐

இ) 180 மி.லிக்கு மேல் ☐

உடல் எடை

7) சராசரியான உடல் எடை

அ) 50-60 கிலோ ☐

ஆ) 60-70 கிலோ ☐

இ) 70-80 கிலோ ☐

8) இடுப்பு-வயிறு சதவிகிதம் (ஆண்)

அ) (<0.90) இயல்பானது ☐

ஆ) (0.90-0.099) அதிக எடை ☐

இ) (1.00) தொப்பை ☐

9) இடுப்பு-வயிறு சதவிகிதம் (பெண்)

அ) (<0.80) சராசரி ☐

ஆ) (0.80-0.84) அதிக எடை ☐

இ) (<0.85) மிக அதிக எடை ☐

பகுதி-இ

1) வாழ்க்கை முறையை மாற்றியமைப்பது என்பது

அ) உடல் நலம் குறித்து புதிய போக்குகளை கற்றுக்கொள்வது ☐

ஆ) நீண்ட கால அம்சங்களை மாற்றுதல் மற்றும்
புதிய நடத்தையை பராமரித்தல் ☐

இ) மன போக்கு, மனப்பான்மையை மாற்றும் வாழ்க்கை ☐

2) நீரிழிவு நோயாளிகள் கட்டுப்படுத்தப்படும் பொதுவான உணவுகள்

அ) மோர் ☐

ஆ) பழங்கள் ☐

இ) கிழங்கு வகைகள் ☐

3) நீங்கள் கட்டுப்பாடு இல்லாமல் எடுத்துக்கொள்ளும் உணவு வகைகள்

அ) சாக்லேட் ☐

ஆ) மஞ்சள் வாழை ☐

இ) பச்சை காய்கறிகள் ☐

4) ஒரு சிறிய ஆப்பிளுக்கு பதிலாக சர்க்கரை நோயாளிகளுக்கு சிறந்த மாற்று பழம்

அ) அரை கோப்பை ஆரஞ்சு சாறு ☐

ஆ) மாம்பழம் ☐

இ) சப்போட்டா ☐

5) நீரிழிவு உணவு எடுத்துக்கொள்ளும் கால வரை

அ) 10 வருடம் ☐

ஆ) வாழ் நாள் முழுவதும் ☐

இ) 1 வருடம் ☐

6) ஒரு கிராம் கார்போஹைட்ரேட் ஆற்றல் அளிக்கிறது

அ) 4 கி.கலோரி ☐

ஆ) 6 கி. கலோரி ☐

இ) 2 கி. கலோரி ☐

7) நிரிழிவு நோயாளிகள் எந்த வகையான குளிரூட்டும் எண்ணெய் பயன்படுத்தலாம்

அ) சூரியகாந்தி ☐

ஆ) தேங்காய் எண்ணெய் ☐

இ) பாமாயில் ☐

<u>உடற்பயிற்சி</u>

8) உடற்பயிற்சி நோயாளிகளுக்கு முக்கியம்

அ) ஆரோக்கியத்தை பராமரிக்க ☐

ஆ) சமூகத்தை பராமரிக்க ☐

இ) இன்சுலின் பயன்பாடு மேம்படுத்த ☐

9) பின்வரும் உடற்பயிற்சிகள் நீரிழிவு நோயாளிகளுக்கு மிகுந்த பயனை அளிக்கின்றன

அ) நடை பயிற்சி மற்றும் ஓட்டம் ☐

ஆ) சைக்கிள் ஓட்டுதல், நடை பயிற்சி ☐

இ) பழுதூக்குவது மற்றும் நீச்சலடிப்பது ☐

10) நீரிழிவு நோயாளிகள் அதிகபட்சம் பயன்பெற வாரத்தில் பயிற்சி செய்ய வேண்டிய நாட்கள்

அ) 5 நாட்கள் ☐

ஆ) 3 நட்கள் ☐

இ) 2 நாட்கள் ☐

11) உடற்பயிற்சியின்போது அடையக்கூடிய ஆபத்துகள்

அ) சுய நினைவு இல்லாமை ☐

ஆ) நெஞ்சு துடிப்பு ☐

இ) முதுகுவலி ☐

12) நீங்கள் உடற்பயிற்சிக்காக ஒதுக்கும் நேரத்தால் பயன் அடையலாம்

அ) 40 நிமிடங்கள் ☐

ஆ) 60 நிமிடங்கள் ☐

இ) 30 நிமிடங்கள் ☐

பாதங்களை பாதுகாத்தல்

13) காயங்கள் ஏற்படாமலிருக்க தொடர்ந்து முன்னெச்சரிக்கையாக இருக்க வேண்டும்

அ) உங்கள் கால்களால் நீரின் வெப்பநிலையை சரிபார்க்கவும் ☐

ஆ) தினசரி உங்கள் பாதங்களை தண்ணீரில் ஊறவைக்கவும் ☐

இ) உங்கள் பாதங்களை வெப்பம், குளிரிலிருந்து பாதுகாக்கவும் ☐

14) உங்கள் பாதங்களை நீங்களே சுய பரிசோதனை செய்வதன் மூலம்

அ) பாதங்களில் வெடிப்பு மற்றும் விரல்களில் நகம் வளர்வதை கவனித்தல் ☐

ஆ) முக்கியமாக ஒருசில இடங்களில் நிரமாற்றம் ஏற்படுவதை கவனித்தல் ☐

இ) மேலே உள்ள அனைத்தும் ☐

15) உங்கள் கால் பாதங்களில் அல்லது கால் விரல்களில் சிறிய காயம் இருந்தால்

அ) மருத்துவரிடம் செல்ல வேண்டும் ☐

ஆ) வீட்டு வைத்தியம் பயன்படுத்தலாம் ☐

இ) அதை புறக்கணிக்கவும் ☐

16) நீங்கள் உங்கள் கால் பாதங்களை காயங்களிலிருந்து பாதுகாப்பதன் மூலம்

அ) கால் விரல் நகத்தை ஆழமாக வெட்டி எடுப்பது ☐

ஆ) எப்பொழுதுமே காலணிகளை அணிவது ☐

இ) கால்களை உலர வைப்பது ☐

17) நீங்கள் நகங்களை ஒழுங்கமைக்க

அ) நேராக முழுவதும் வெட்டுவது ☐

ஆ) நகத்தின் முனையிலிருந்து வெட்டுவது ☐

இ) குழிவான வடிவத்தில் வெட்டுவது ☐

<u>தோல் நோய்கள் பாதிக்கப்படுதல்</u>

18) நீரிழிவு நோயாளிகளுக்கு பொதுவாக வரும் தோல் நோய்

அ) கொப்புளங்கள் ☐

ஆ) தோல் அரிப்பு ☐

இ) சிரங்கு ☐

19) உங்கள் தோலில் ஏற்படும் நோயை தடுப்பதன் மூலம்

அ) தினசரி குளியர் மற்றும் சுத்தமான உடை ☐

ஆ) சுத்தமான சூழல் ☐

இ) மேலே உள்ள அனைத்தும் ☐

20) நீரிழிவு நோயாளிகளுக்கு பொதுவான நோய் தொற்று பாதிக்கப்படுவது

அ) காது ☐

ஆ) கால்கள் ☐

இ) வயிறு ☐

21) நீரிழிவு நோயினால் ஏற்படும் கடுமையான சிக்கல்கள்

அ) இரத்த சர்க்கரை குறைவு ☐

ஆ) சிறுநீரக நோய் ☐

இ) விழித்திரை பாதிப்பு ☐

22) நீடித்த நீரிழிவு நோயினால் ஏற்படும் நோய் சிக்கல்கள்

அ) இதய பிரச்சனை ☐

ஆ) கண் பிரச்சனை மற்றும் நரம்பு பாதிப்பு ☐

இ) மேலே உள்ள அனைத்தும் ☐

23) சோமோகி விளைவுகளின் அர்த்தம்

அ) படுக்கை நேரத்தில் இரத்த சர்க்கரை அதிகரித்தல் ☐

ஆ) இரத்தத்தில் சர்க்கரை அளவு உயர்தல் ☐

இ) அதிகாலையில் சர்க்கரை அளவு உயர்தல் ☐

24) நீரிழிவு நோயாளி அதிகப்படியாக எடுக்க நேரிடும் போது

அ) அதிகரித்த வியர்வை மற்றும் மயக்கம் ☐

ஆ) வாந்தி மற்றும் வயிற்றுப்போக்கு ☐

இ) திடீர் சர்க்கரையின் அளவு அதிகரித்தல் ☐

25) சிக்கலை தடுக்க முன்னெச்சரிக்கையாவதன் மூலம்

அ) வழக்கமான சோதனை ☐

ஆ) உணவு மற்றும் மருந்துகள், உடற்பயிற்சி ☐

இ) மேலே உள்ள அனைத்தும் ☐

ஒப்பீடு அளவுகோல்– நீரிழிவு நோய்க்கான வாழ்க்கைமுறை மற்றும் அவர்களுடைய மனோபாவம்

வ. எண்.	அறிக்கை	தீவிரமாய் அங்கீகரி	அங்கீகரி	நடுநிலை	புறக்கணி	தீவிரமாய் புறக்கணி
		5	4	3	2	1
1.	நீரிழிவு மருந்துகளால் நீரிழிவு நோயை குணப்படுத்த முடியும்					
2.	நீரிழிவு மருந்துகளை வாழ்க்கையில் உட்கொள்ள வேண்டும்					
3.	நீ நோய்வாய்பட்டிருக்கும் போது நீரிழிவு மருந்துகளை எடுத்துக்கொள்ள வேண்டும்					
4.	மோசமான நீரிழிவு கட்டுப்பாட்டினால் சிக்கல் அதிகம் ஏற்பட வாய்ப்புள்ளது					
5.	குறைந்த ரொட்டி சாப்பிடுவதன் மூலம் என் உடல் எடையை இழக்கச் செய்வேன்					
6.	உப்பு உணவு உட்கொள்ளுதல் மூலம் என் சர்க்கரை அளவு குறைவதை தடுக்கிறது					
7.	நீரிழிவு மாத்திரை எடுப்பதனால் கால்களில் வீக்கம் இருக்கும்					
8.	பொதுவாக நீரிழிவு நோயாளிகளுக்கு கால் பாதங்களில் புண் ஏற்படும்					
9.	நீரிழிவு நோயினால் பாதிக்கப்பட்டவர்கள் கால்களில் இரத்த ஓட்டம் குறைவாக இருக்கும்					
10.	மென்மையான வளிமண்டல உடற்பயிற்சி குளுக்கோஸ் அளவை கட்டுப்படுத்தி பராமரிக்க உதவும்					
11.	நீரிழிவு நோயாளிகளுக்கு உடல் பயிற்சி முக்கியம்					
12.	எனக்கு நீரிழிவு நோயில்லை என்றால் வித்தியாசமான நபர் போல் இல்லாமல் இருப்பேன்					
13.	நீரிழிவு நோயுடன் ஒரு சாதாரண வாழ்க்கை வாழ சிறிய நம்பிக்கை உள்ளது					

வ. எண்.	அறிக்கை	தீவிரமாய் அங்கீகரி	அங்கீகரி	நடுநிலை	புறக்கணி	தீவிரமாய் புறக்கணி
		5	4	3	2	1
14.	நீரிழிவு சரியான கட்டுப்பாட்டில் வைத்திருக்கும் போது தியாகம் மற்றும் சிரமத்திற்கு நிறை ஈடுபடுத்துகிறது					
15.	நீரிழிவு நோயால் பாதிக்கப்பட்ட மக்களுக்கு பொதுவாக நாங்கள் மிகவும் அனுதாபம் காட்ட வேண்டும்					
16.	நீரிழிவு நோயாளிகளுக்கு மாற்றங்கள் நீண்டகாலமாக இருக்கும்					
17.	நீரிழிவு நோயை கட்டுப்படுத்த முடியும்					
18.	நீரிழிவு நோயாளிகள் நான் சொல்வதை செய்வார்கள் என நம்புகிறேன்					
19.	நீரிழிவு நோய் இருந்தால் என்னால் எதுவும் செய்ய முடியாது					
20.	என்னுடைய பழக்கத்தினால் கடந்த வாரம் நீரிழிவு மருந்தை உட்கொள்ள மறக்கவில்லை.					

STRUCTURE TEACHING PROGRAMME

Topic:-	A Study to assess the effectiveness of structure teaching programme on knowledge and attitude regarding lifestyle modification among clients with type-2 diabetes mellitus attending diaabetology outpatient department at Rajiv Gandhi Government General Hospital,Chennai-3
Group:-	Type-2 Diabetes mellitus.
Venue:-	Diabetology outpatient department RGGGH-Chennai-3
Instructor:-	Investigator;-
Time: -	45 mts
Method of Teaching:-	Lecture Cum Discussion.
Teaching methods:-	Pamphalets, booklets Laptop video,

CENTRAL OBJECTIVES:

At the end of the structure teaching program diabetic patient gains knowledge and understand regarding diabetes mellitus and develop desirable skill and attitude to apply this knowledge in taking care of their health and prevention of complication.

SPECIFIC OBJECTIVES:

The diabetic patients are able to ,

- define diabetes mellitus.
- list out the causes and risk factors for diabetes mellitus.
- classify the diabetes mellitus.
- describe the clinical factors of diabetes mellitus.
- enlist the simple investigations of diabetes mellitus.
- explain the treatment of diabetes mellitus.
- enumerate the complications and its preventions of diabetes mellitus.
- educate the client regarding lifestyle modification

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
5 min		**DIABETES MELLITUS** Women and diabetic our right to a Healthy Life. – International Federation, 2017. **INTRODUCTION** Diabetes mellitus is a multisystem disease related to abnormal insulin production, impaired insulin utilization or both. Diabetes mellitus a serious health problem throughout the world. Nearly 20% of people over age 65 years have diabetes. Diabetes is the leading cause of heart disease, stroke, adult blindness and non-traumatic lower limb amputation. Pancreas, the sources of insulin production, is an essential organ responsible for both digestion and glucose homeostasis. Insulin is associated with "blood sugar" and true enough, insulin has profound effect on carbohydrates metabolism. Besides, it also plays a very vital role in fat and protein metabolism. Absolute or relative insulin deficiency causes diabetes mellitus which is characterized by abnormalities in carbohydrates, protein and fat metabolism. The hormones of particular importance in glycemic regulation are insulin. glucagon and morerecently glucagon like peptide.	Teaching	Learning	Power Point

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
2 min	define diabetes mellitus	**DEFINITION** Diabetes mellitus is a group of metabolic diseases characterized by elevated level of glucose in the blood (hyperglycemia) resulttng from defects in insulin secretion, insulin action or both. NORMAL BLOOD GLUCOSE LEVEL = 80-120 mg/dl Please is the organ which secretes insulin. **INCIDENCE** As of 2017 30.3 million people have diabetes worldwide. Type-2 makes up about 90% of the cases. This is equal to 7.2% million people undiagnosed of the adult population with equal rates in both women and men. In 2016, the International Diabetes Federation (IDF) estimated that diabetes resulted in 4.9 million deaths.	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
3 min	list out the causes and risk factors for diabetes mellitus.	**ETIOLOGY AND RISK FACTORS:** • Hereditary • Auto immune • Environmental factors • Family history of diabetes • Obesity • Age >45 years • Hypertension (>140/90mm Hg) • History of gestational diabetes	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
2 min	classify the diabetes mellitus.	**CLASSIFICATIONS** **Type-I diabetes mellitus** • Formerly known as insulin dependent diabetes mellitus. • It is most often occur in people who are under 30 years of age. **Type-II diabetes mellitus:** Most prevalence type of diabetes accounting for over 90% of patients with diabetes. • Usually occur in people over 40 years of age. • 80-90% of patients are overweight at the time of diagnosis. **Gestational diabetes mellitus** • Gestational diabetes mellitus develops during pregnancy. • It is detected at 24-2 8 weeks of gestation.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
2 min	describe the clinical factors of diabetes mellitus.	**CLINICAL MANIFESTATIONS** • The classical symptoms are • Poly uria (frequent urination) • Polydipsia (excessive thirst) • Polyphagia (excessive hunger) due to inadequate conversion of nutrient to energy due to insulin deficiency. • Weight loss • Weakness • Fatigue • Prolonged wound healing. • Visual changes • Over weight	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
3 min	enlist the simple investigations of diabetes mellitus.	**DIAGNOSTIC EVALUATION** • History collection • Physical examination • Two hours OGIT level exceeding 200mgJdl. • Fasting glucose 70-130 mg/dl. • Post prandial blood sugar level <180 mg/dl. • Glycosylated hemoglobin level (Hb Alc) level 7% (or) less. • Urine sugar test. • Micro albuminuria • Ketone test	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
15 min	explain the treatment and life style modifications of diabetes mellitus.	**MANAGEMENT** • The two types of glucose lowering agents [GLAs] used in the treatment of diabetes are insulin and oral agents [OAs]. • All individuals with type 1 diabetes require insulin. • For some people with type II diabetes a regimen of proper nutrition, regular physical activity and maintenance of desirable body weight will be sufficient to attain an optimal level of blood glucose control. **NUTRITION THERAPY** It is the cornerstone of the care for the person with diabetes. Many people both lay and professional are misinformed about the nutritional management of diabetes. Instead nutrition therapy for the management of diabetes is based on a plan of healthy eating that is appropriate and beneficial to the most people whether they have diabetes or not.	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		GOAL • Attaining and maintaining optimal outcomes in terms of near normal blood sugar. • In preventing chronic complications of diabetes by modification of nutrient intake and life style. • Addressing individual needs such as personal. cultural preference and life style practices. **FOOD COMPOSITION** • Protein — I5%2O % of total daily calories. • Fat — 25-35% of daily calories from saturated fat. • Carbohydrates — 5O-6O% of calories • Sodium — intake should be less than 2400mg/day. • Fiber — approximately 25 3() g/day.	Explaining	Listening	PPT

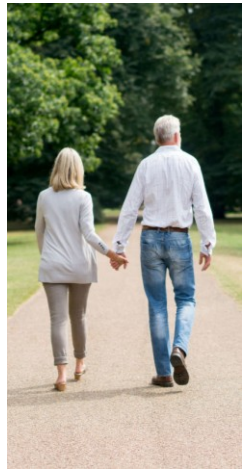
Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		FOOD TO BE TAKEN: • One fruit per day (10g/day) • Eat vegetables (beans, bitter guard, cabbage etc.) • Pulses • Green leafy vegetables • Marie biscuit • Clear soup. • Pepper water. • Plain coffee or tea. • Skimmed butter milk. • Unsweetened lime juice. Macro vascular complications are disease of the large and medium sized blood vessels that occur with greater frequency and with an earlier onset in people with diabetes. **Macro vascular diseases includes** • Cerebrovascular • Cardio vascular • Peripheral vascular disease	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
15 min	enumerate the complications of diabetes mellitus.	**RISK FACTORS:** • Obesity, smoking, hypertension. • High fat intake and sedentary life style. **MICROVASCULAR COMPLICATIONS** It results from thickening of the vessels membranes in the capillaries and arterioles in response to conditions of chronic hyperglycemia. They differ from the macro vascular complications in that they are specific to diabetes. • Eye (retinopathy) • Kidney (nephropathy) • Neuropathy	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		DIABETIC RETINOPATHY • Rapid heartbeat, head ache. • Emotional changes, nervousness. • Profuse sweating, tremors, faintness, dizziness. • Unsteady gait, slurred speech. hunger. changes in vision, seizure and coma. **TREATMENT:** • Immediate ingestion of 5-20g of simple carbohydrates/sugar. • Ingestion another 5-20g of simple carbohydrates in 15 mm if no relief obtained, contacting the physicians, if no relief obtained. • Discussion with physician about medication dosage.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		PREVENTIVE MEASURES: • Taking prescribed dose of medication at proper time. • Accurate administration of insulin / oral agents. • Ingestion of all ordered diet foods at proper time. • Provision of compensation for exercise. • Ability to recognize and know symptoms and treat them immediately. • Carrying of simple carbohydrates. • Education of friends, family, fellow employees about symptoms and treatment. • Checking blood glucose as ordered. • Wearing medical alert (diabetic identification).	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		CHRONIC COMPLICATION: **Macro Vascular Complication** • Favorable changes in body composition. • Maintenance and improvement in body weight. • Improvement of psychological well-being. **AVOIDING COMPLICATIONS:** • Stop exercise if symptoms of hypoglycemia occur during exercise. • Check blood glucose before and after exercise. • Eat a snacks with 15-30gm of quickly absorbed carbohydrates like hard candies, juices etc. prior to exercise depending on pre exercise blood glucose. • Always have water and snacks handy during activity. • Wear a medical identification tag to protect in case of emergency. • Exercise with a friend whenever possible. • Avoid exercise when patient is feeling ill.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		TIMING FOR EXERCISE: • Exercise should always be 1-3 hours after eating something. • Diabetes who is on insulin should not exercise when their insulin is at its peak. • Since exercise can lower blood glucose hour later, exercising just before bed time should he avoided to prevent hypoglycemia in the middle of the night. **EXERCISE PRESCRIPTION SHOULD INCLUDE** • Warm up period:5- I 0mm of aerobic activity such as walking or bicycling at low intensity. • Period of intense exercise. • Coconut water- 150m1. • Jamun — 100 gm. • Banana — ½ big or 40 gm. • Chickoo — I small. • Mango — ‘/2 medium or 75gm. • Sitaphal — ½ big size or 50 gm. • Grapes — 10-12 pieces.	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		EXERCISE: Exercise is being increasingly recognized as a part of the treatment for diabetes mellitus. The beneficial effect of exercise on glycemic control largely results from increased tissue sensitivity to insulin. To understand effects of exercise on diabetes patient, it is essential to understand the physiology of exercise on normal subjects. The physiological effects will depend on the type and duration of exercise. **BENEFITS:** • Improvement in glycemic control. • Improvement in insulin sensitivity and lowered insulin requirement often leading to reduced dosage of insulin and/or oral hypoglycemic agents especially in people with type 2 diabetes. • Reduction in blood pressure. • Increased fibrinolysis.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		• Improvement inn dyslipidemia. • Increased vascular reactivity. • Reduction in risk for osteoporosis. • Reduction of coronary risk factors. **FOOD TO BE AVOIDED** • Fatty diet • Fired foods (vadat. baji etc.) • Animal foods • Carbohydrate rich foods are restricted • Tubers and roots • Alcohol • Honey • Ghee, cream, butter, cheese, pickle, sugar, jaggery, sweets • Deserts V • Egg yolk, mutton, red meat, chicken skinned. • Grapes, mango, sweet melon, banana, jack fruit. • Cakes, bun, sweet biscuits • Chocolates jam. • Glucose.			

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		FRUITS: • Apple -. I small ½ medium. • Guava— 1 medium. • Orange — I medium. • Papaya — 1 medium. • Pine apple— 1/3 medium. • Pear— I medium. • Sweet lime — I medium. • Water melon — 2-3 slices. • Pomegranate — 1/3 medium. • Tomato juice. • Seasoning like onion, mint, pepper. garlic, curry leaf, coriander, vinegar, mustard.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		FAT EXCHANGE: • Oil — 10g (3 tbsp) • Ghee — 10g (2 tbsp) • Butter — 12g (2 ½ tbsp) • Vanasparhi-10g (2 tbsp) • Margarine—10g. **MILK EXCHANGE:** • Cow's milk— 100ml (½ cup). • Buffalos milk —50 ml (¼ cup). • Curds— 100 ml(½cup). . • Skimmed milk —200 ml (1 cup). • Skimmed milk powder- l8g (5 tbsp). • Whole milk powder — 13 g (3 tbsp).	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		NON VEGETARIAN EXCHANGE: • Fried preparations to be avoided. • To be included as curry, baked or grilled. • Non- vegetarian can be mixed with vegetables to make a curry. • To be avoided inn the night. • 100gm fish/chicken = 20 gm protein = 100kcal. **IMPORTANT POINTS TO REMEMBER:** • Diabetic patients should go for annual medical checkup. • Eye and dental checkup once in a year. • No feasting, no fasting. • Regular exercise, weight reduction. • Avoid smoking and alcoholism. • Regular medicine as per prescription. • Carry an identification card.	Explaining	Listening	PPT 

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		• Foot care. • Patients should be instructed that these agents will help keep blood glucose controlled and will help prevent serious complications. • Patients should not take extra pills if over eating has occurred, unless specifically instructed to do so by their health care provider. • Patients should take the drugs regularly without missing the dose. • Routine care should include regular bathing with particular emphasis given to foot care. • If the injury does not begin to heal within 24 hours or if signs of infection develop, the health care provider should be notified immediately. • Travel for a patient with diabetes requires advance			

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		planning. • The patient should have a full set of diabetes care supplies in the carryon luggage when travelling by plane, train, bus. • When the patient feels tired on experiences hypo/hyper glycenic symptoms patients is advised to check the blood sugar level. • For patients who use insulin or an oral agent that can cause hypoglycemia, snacks items and a quick acting carbohydrates source for treating hypoglycemia should be included in the carryon • If the patient is planning a trip out of the country, it is wise to have a letter from the health care provider explaining that the patients has diabetes and requires all the materials. particularly syringes for ongoing health care.			

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		TIPS TO START A WALKING PROGRAM: • Wear shoes with proper arch support, a firm heel and thick flexible soles that will cushion your feet and absorb shock. • Wear clothes that will keep you dry and comfortable. • Start gradually to avoid stiff or sore muscles and joints. Begin walking faster, further and walking for longer periods of time over several weeks. • Set goals and reward. • Keep track of your progress with a walking journal or log. **SELF MONITORING OF BLOOD GLUCOSE:** Self-monitoring of blood glucose is a cornerstone of diabetes management thus enabling clients to make self-management decisions regarding diet, exercise and medications.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		BENEFITS: • It gives immediate information about blood glucose value that can be used to adjust food intake, activity patterns, and medication dosage. • It produces accurate records of daily glucose fluctuation and trends, as well as alerting patients to acute episodes of hyperglycemia and hypoglycemia. • It is a tool for achieving and maintaining specific glycemic goals. • It has a great educational value in assessing blood glucose responses to insulin, food and exercise. **BARRIERS:** • Vision problem. • Fine motor co-ordination V • Willingness. • Cost. • Impending fear. • Feeling of guilt owing to increased values impedes monitoring.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		TRAINING: • Wash hands with warm water. It is not necessary to clean the site with alcohol and it may interfere with test results. Fingers should dry before puncturing. • Use the side of finger pad rather than the center as fewer nerve endings are along the side of the finger pad. • The puncture should be deep enough to obtain sufficiently large drop of blood. Unnecessarily deep punctures may cause pain and bruising. • Follow monitor instructions for testing the blood. • Record results and compare to personal target glucose goals. **COMPLICATIONS:** **Acute Complications** • Glucosuria • Nausea and vomiting • Abdominal cramps	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		MANAGEMENT OF HYPER GLYCEMIA: • Physicians attention • Continuing of diabetes medicines as ordered. • Frequent checking of blood sugar level • Hourly drinking of fluids **HYPOGLYCEMIA** Hypoglycemia or low blood glucose occurs when there is. too much insulin in proportion to available glucose in the blood. This causes the blood glucose level to drop to less than 70mg/dl. **CAUSES:** • Alcohol intake without food. • Too little food, delayed, vomited, inadequate intake. • Too much diabetes medication. • Too much exercise without compensation. • Diabetes medication or food takes at wrong time. • Loss of weight without change in medication.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		SIGNS AND SYMPTOMS: • Blood glucose < 50 mg/dl. • Cold, clammy skin, numbness of fingers, toes, mouth. **DIABETIC KETOACIDOSIS** Referred to as diabetic acidosis and diabetic coma is caused by a profound deficiency of insulin and characterized by hyperglycemia ketosis and acidosis and dehydration. **HYPERGLYCEMIA** It is the life threatening syndrome that can occur in the patient with diabetes who is able to produce enough insulin to prevent DKA but not enough to prevent severe hyperglycemia, osmotic diuresis and extra cellular fluid depletion.	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		CAUSES: • Too much food intake • Too little or no diabetes medication • Inactivity • Emotionai, physical stress • Poor absorption of insulin **SIGNS AND SYMPTOMS** • Elevated blood glucose level • Increase in urination • Weakness, fatigue • Blurred vision, Head ache • Peripheral vascular disease. **FOOT CARE:** • Wash feet daily with a mild soap and warm water. • Pat feet dry gently, especially between toes. Examine	Explaining	Listening	PPT

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		the feet daily for cuts, blisters, swelling and red tender areas. • Use mild foot powder on sweaty foot. • Cleanse cuts with warm water and mild soap, covering with clean dressing • Separate over lapping toes with cotton or lamb s wool. • Avoid open-toe, open- heel and high heel shoes. • Do not wear clothing that leaves impressions, hindering circulation. • Do not use hot water bottles or heating pads to warm feet, wear socks for warmth. • Exercise feet daily either by walking or by flexing and extending feet in suspended position. • Avoid prolonged sitting, standing and crossing of legs. **MICRO CELLULAR RUBBER** MCR is a specially processed rubber material with 15 chemicals, where bubbles of air are introduced into rubber, creating millions of "micro cells" containing air. These			

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		micro sized closed cells resemble fat filled cells under the sole of foot. Generally a pair of good MCR sandals will last for 18 to 24 months. It has the following qualities: MCR withstands friction while walking and still maintains its **NEPHROPATHY** ft is a micro vascular complication associated with damage to the small blood vessels that supply the glomeruli of the kidney. **NEUROPATHY:** It is nerve damage that occurs because of the metabolic derangements associated with diabetes mellitus. **COMPLICATIONS OF THE FOOT:**			

Time	Contributory Objectives	Content	Teacher Activity	Students Activity	AV Aids
		Foot complications are the most common cause of hospitalization in the person with diabetes. The development of diabetic foot complications is a multifactorial process. Improper foot care can cause foot ulcer. They result from a combination of miecro vascular and macro vascular disease that place the patient at risk for injury and serious infection that may leads to amputation. **RISK FACTORS:** • Fissured skin. • Limited joint mobility. • Obesity. • Clotting abnormalities • Impaired immune functions • Diabetes duration more than 10 years.			

செவிலியர் கல்லூரி

சென்னை மருத்துவக் கல்லூரி, சென்னை–600 003.

நீரிழிவு நோயாளிகளுக்கான வாழ்க்கை முறை மாற்றம் பற்றிய திட்டமிட்ட முறையான நலக்கல்வியின் பாடத்திட்டம்

தலைப்பு	:	நீரிழிவு நோய் மற்றும் வாழ்க்கை பணி மாற்றம்
குழு	:	புதிதாக கண்டறியப்பட்ட நீரிழிவு நோயாளி
இடம்	:	ராஜீவ் காந்தி அரசு பொது மருத்துவமனை, சென்னை–600 003.
காலம்	:	30 நிமிடம்
விரிவுரை வந்த விதம்	:	போதனை முறை
போதனைக்கு உதவிய கருவிகள்	:	கணிப்பொறி, இயற்கை பருப்பு வகைகள்

பொது நோக்கங்கள்

நீரிழிவு நோயாளிகள் அறிவு முடிவில், நீரிழிவு நோயாளி, வாழ்க்கை பாணி மாற்றத்தை பற்றியும், பக்க விளைவுகளை தடுக்கும் முறையையும், நீரிழிவு நோயாளி அறிந்து செயல்படுவார்கள்.

குறிப்பிட்ட இலக்குகள்

நீரிழிவு நோயாளிகள் முடிவில்

- நீரிழிவு நோயின் வரையறை
- நீரிழிவு நோய்க்கான காரணங்களை பட்டியலிடு
- நீரிழிவு நோயின் வகைகள்
- நீரிழிவு நோயின் மருத்துவ முறையை விவரி
- நீரிழிவு நோயின் வாழ்க்கை பாணி மாற்றத்தை அறிவுறுத்தல்
- நீரிழிவு நோயின் பக்கவிளைவுகள் என்ன
- பாதம் பாதுகாக்கும் முறைகளை விவரி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			நீரிழிவு நோய் அசாதாரண இன்சுலின் உற்பத்தி, பலவீனமான இன்சுலின் பயன்பாடு, அல்லது இரண்டும் தொடர்பான பல படித்தான நோய் ஆகும். நீரிழிவு உலகிலேயே மிகவும் அபாயகரமான நோய். 20ரு நீரிழிவு நோய், 65 வயதிற்கு மேலானோர்க்கு தோன்றுகிறது. கணையம், இன்சுலின் உற்பத்தியை சுரக்கும். இவை உணவு செரிமானம் மற்றும் குளுகோஸ் ஹோமியோஸ்டசிஸ் போன்ற பணிகளை செய்யும் இன்சுலின் இரத்த சர்க்கரை நோய்க்கான முக்கிய காரணம். இதை தவிர கொழுப்பு மற்றும் புரத வளர்சிதை மாற்றத்தில் ஒரு முக்கிய பங்கு வகிக்கிறது. முழுமையான அல்லது தொடர்புடைய இன்சுலின் குறைபாடு,			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			கார்போஹைட்ரேட், புரதம் மற்றும் கொழுப்பு வளர்சிதை மாற்றத்தை உருவாக்கும். இதனால் நீரிழிவு நோய் ஏற்படும். இதனை கட்டுப்படுத்த உதவுதவது குளுகோஜென் மற்றும் பெப்டைட் ஆகும்.			
1.	நீரிழிவு நோயின் வரையறை	2 நிமிடம்	வரையறை நீரிழிவு நோய் என்பது உயர் இரத்த குளுகோஸ் அளவு மற்றும் இன்சுலின் சுரப்பதில் குறைபாடு அல்லது இரண்டும் கலந்தவை. கணையம் இன்சுலினை சுரக்கிறது. நீரிழிவு 2017ல் 30.3 மில்லியன் மக்கள் உலகளவில் நீரிழிவு நோயால்			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			பாதிக்கப்பட்டுள்ளநர். 23.3 மில்லியன் மக்களுக்கு நீரிழிவு கண்டுபிடிக்கப்பட்டு உள்ளது. 7.2 மில்லியன் மக்களுக்கு நீரிழிவு கண்டுபிடிக்கப்படவில்லை. 2016ல் 49 மில்லியன் மக்கள் நீரிழிவால் இறந்துள்ளனர்.			
2.	நீரிழிவு நோய்க்கான காரணங்கள் பட்டியலிடு	2 நிமிடம்	நோய்க்காரணம் மற்றும் ஆபத்து காரணிகள் • பரம்பரை • கார் நோய் எதிர்ப்பு • சுற்றுச்சூழல் காரணம் • குடும்ப வரலாறு • உடல் பருமன் • கர்ப்பகாலம் நீரிழிவு நோய் • வயது 45க்கு மேல்	கர்ப்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• இரத்த அழுத்தம			
3.	நீரிழிவு நோயின் வகை	2 நிமிடம்	வகைபாடு **<u>வகை–1</u>** • இவை இன்சுலின் சார்ந்த நீரிழிவு நோய் • 30 வயதிற்கு கீழ் உள்ளோர்க்கு இவ்வகை நீரிழிவு தோன்றும் **<u>வகை–2</u>** • இவை இன்சுலின் சார்ந்திடாத நீரிழிவு நோய் • 40 வயதிற்கு மேல் உள்ளோர்க்கு இவ்வகை நீரிழிவு தோன்றும் **<u>கர்ப்பகால நீரிழிவு</u>** • கர்ப்பகாலம் நீரிழிவு என்பது மகப்பேறு காலத்தில் உண்டாகும். • இவை கருவுற்று 24–28	கற்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			வாரங்களில் கண்டறியப்படும். **<u>அறிகுறிகள்</u>** • பாலியூரியா (அடிக்கடி சிறுநீர் கழித்தல்) • பாலி டிப்சியா (அதிகப்படியான தாகம்) • பாலி பேஜியா (அதிக பசி) ஊட்டச்சத்து சரியாக ஆற்றலாக மாறாமல் போகும். • உடல் எடை இழப்பு • பலவீனம் • சோர்வு • நீண்ட காலம் காயங்கள் ஆறாது • பார்வை குறைபாடு **<u>கண்டறியும் மதிப்பீடு</u>** • வரலாற்று சேகரிப்பு			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• உடல் பரிசோதனை • ஓ.கு.ட.டே. என்னும் சோதனை 200 எம்/ஜி டெசிலிட்டருக்கு மேல் இருக்கும் • உணவு உண்ணும் முன் 70–130 எம்.ஐ/டெ.லி இருக்க வேண்டும் • எச்.பி.ஏ.ஒன்.சி அளவு 7ரூ–க்குள் இருக்க வேண்டுமம். • சிறுநீரில் சுகர் அளவு கண்டறியப்படும்			
4.	நீரிழிவு நோயின் மருத்துவ முறையை விவரி	5 நிமிடம்	சிகிச்சை • இரண்டு வகையான சிகிச்சை அளிக்கலாம். அவை வாய்வழி மருந்து மற்றும் இன்சுலின் மருந்து. <u>**வகை–1**</u> • நீரிழிவு நோயாளி கண்டிப்பாக	கற்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			இன்சுலின் எடுக்க வேண்டும். **<u>வகை–2</u>** • நீரிழிவு நோயாளி சரியான ஊட்டச்சத்து தொடர்ந்து உடற்பயிற்சி மற்றும் உடல் எடை குறைப்பு இவை அனைத்தும் இரத்த குளுகோஸ் அளவை குறைக்கும			
5.	நீரிழிவு நோயின் வாழ்க்கை பாணி மாற்றத்தை அறிவுறுத்தல்	15 நிமிடம்	ஊட்டச்சத்து சிகிச்சை நீரிழிவு நோயாளிக்கு உணவு மாற்றம் மிகவும் முக்கியம். உணவு மாற்றம் செய்வதின் மூலம் நீரிழு நோயை தடுக்கலாம் மற்றும் இரத்த குளுகோஸ் அளவை குறைக்கலாம். **<u>நோக்கம்</u>** • இரத்த குளுகோஸ் நிலையை	கற்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			பராமரிக்க வேண்டும். • உணவின் மூலம் பக்கவிளைவுகளை தடுக்கலாம். • கலாச்சாரத்திற்கு தகுந்தாற்போல் உணவை மாற்றலாம். **<u>உணவு கலவை</u>** • புரதச்சத்து –15ரூ–20ரூ கலோரிகள் • கொழுப்புச்சத்து –25ரூ–35ரூ கலோரிகள் • கார்போஹைட்ரேட்ஸ் –50ரூ–60ரூ கலோரிகள் • சோடியம்– 2400 எம்.ஜி/நாள் • நார்சத்து –25ரூ–30ரூ கி/நாள் **<u>அருந்த வேண்டிய உணவு</u>**			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• 1 பழம் (10கி) ஒரு நாளைக்கு • காய் (பீன்ஸ், கோஸ், பாகற்காய்) • கீறைகள் • பிஸ்கட் • தெளிவான சூப் • எலுமிச்சை சாறு • மிளகு நீர் • பால இல்லா காபி அல்லது டீ • மோர் • தக்காளி ஜூஸ் • வெங்காயம், மிளகு, பூண்டு, கருவேப்பிலை, கொத்தமல்லி, வினிகர், கடுகு **<u>கொழுப்பு சார்ந்தவை</u>** • எண்ணெய்– 10 கிராம் (3 டீஸ்பூன்)			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• நெய்– 10 கிராம் (2 தேக்கரண்டி) • வெண்ணெய்– 12 கிராம் (21/2 டீ ஸ்பூன்) • வணஸ்பதி– 10 கிராம் (2 டீஸ்பூன்) **<u>பால் சார்ந்தவரை</u>** • பசுவின் பால் –100 மி.லி (1/2 கப்) • எருமை பால்– 50 மி.லி (1/4 கப்) • தயிர்– 100 மி.லி (1/2 கப்) • ஆடை நீக்கப்பட்ட பால்– 200 மி.லி (1 கப்) • ஆடை நீக்கப்பட்ட பால் பவுடர் –18 கி (5 டீஸ்பூன்) • முழு பால் பவுடர் –13 கிராம் (3			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			டீஸ்பூன்) **<u>அசைவம் சார்ந்தவை</u>** • வறுத்தவை தவிர்க்கப்பட வேண்டும் • 100 கிராம் மீன்/ கோழி, 20 கிராம் (புரதம்=100கி சோலர்) • இரவு உணவுக்குப்பின் தவிர்க்கப்பட வேண்டும் **<u>உணவில் தவிர்க்கப்பட வேண்டியவை</u>** • கொழுப்பு உணவு • வடை, பஜ்ஜி முதலியவை • விலங்கு உணவுகள் • கார்போஹைட்ரேட் நிறைந்த			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			உணவுகள் • கிழங்குகள் • மது • தேன் • நெய், கிரீம், வெண்ணெய், சீஸ் • ஊறுகாய் • சர்க்கரை, வெல்லம், இனிப்பு • முட்டை மஞ்சள் கரு, ஆட்டிறைச்சி, சிவப்பு இறைச்சி • திராட்சை, மாம்பழம், இனிப்பு முலாம்பழம், வாழை, பலாப்பழம் • கேக்குகள், ரொட்டி, இனிப்பு பிஸ்கெட்			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• சாக்லேட்டுகள், ஜாம் • குளுக்கோஸ்			
			<u>பழங்கள்</u> • ஆப்பிள்– 1 சிறிய 1 ஆ நடுத்தர • கொய்யா– 1 துண்டு • ஆரஞ்சு– 1 துண்டு • பப்பாளி– 1 துண்டு • பைன் ஆப்பிள்– 1/3 துண்டு • பேரி– 1 துண்டு • ஸ்வீட் முலாம்பழம்– 2–3 துண்டு • மாதுளை– 1/3 துண்டு	கற்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• இளநீர் தண்ணீர்– 150 மி.லி • வாழை பழம்– பெரியது ஹ அல்லது 40 கிராம் • சப்போட்டா– சிறிய துண்டு • சீத்தாப்பழம்– ஒன்றரை அளவு (பெரியது) அல்லது 50 கிராம் • திராட்சை– 10–12 துண்டு			
			<u>உடற்பயிற்சி</u> உடற்பயிற்சின் மூலம் நீரிழிவு நோயை தடுக்கலாம் மற்றும் கட்டுப்படுத்தலாம். நீரிழிவு நோயாளி உடற்பயிற்சி செய்வதன் மூலம், பக்கவிளைவுகளை தடுக்கலாம். **<u>நன்மைகள்</u>** • கிளை செமிக்கை கட்டுப்படுத்தலாம்	கற்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• இரத்த அழுத்தம் குறையும் • வாஸ்குலர் வினைத்திறன் அதிகரிக்கும் • எலும்பு தேய்மானம் குறையும் • இருதய ஆபத்து குறையும் • உளவியல் நல்வாழ்வை மேம்படுத்துதல்			
			சிக்கல்கள் தவிர்த்தல் • இரத்தச் சர்க்கரை குறையும் அறிகுறிகள் உடற்பயிற்சி போது ஏற்பட்டால், உடற்பயிற்சி நிறுத்த வேண்டும். • உடற்பயிற்சிக்கு முன் மற்றும் பின்	கற்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			இரத்த குளுக்கோஸ் அலவை கண்டறிய வேண்டும். • செயல்பாட்டின் போது நீர் மற்றும் சிற்றுண்டி அருந்த வேண்டும். • மருத்துவ அடையாள டேக் அணிய வேண்டும். **<u>பயிற்சி காலம்</u>** • உடற்பயிற்சி எப்பொழுதும் சாப்பிட்ட பிறகு **1–3** மணி நேரம் கழித்து செய்ய வேண்டும். • உறங்கும் முன் உடற்பயிற்சி செய்தல் தவிர்க்க வேண்டும்.			
			<u>நடைபயிற்சி தொடங்க டிப்ஸ்</u> • காலனியை அணிய வேண்டும்,	கற்பித்தல்	கற்றுக் கொள்ளுதல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			உயர் காலணி தவிர்க்க வேண்டும். • உலரக்கூடிய, வசதியான ஆடைகளை அணிய வேண்டும். • நடைபயிற்சியை இயல்பாக, மெதுவாக ஆரம்பிக்க வேண்டும். **<u>இரத்த குளுகோஸ் சுய கண்காணிப்பு</u>** நீரிழிவு நோயாளி, உடற்பயிற்சி, ஊட்டச்சத்து சிகிச்சை, மருத்துவ சிகிச்சையில் இருக்கும், இரத்த குளுக்கோஸை கண்காணிக்க வேண்டும். நீரிழிவு நோயாளிகள் இரத்த குளுக்கோஸ் சுய கண்காணிப்பு முறையை கண்டறிய வேண்டும். **<u>நன்மைகள்</u>** • இரத்த குளுகோஸ் அளவை			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			உடனடியாக தெரிந்துகொள்ள உதவுகிறது. • தினசரி குளுகோஸ் மாறுபாட்டை அறியலாம்.			
			<u>தடைகள்</u> • பார்வை பிரச்சனை • அறிவாற்றல் திறன் பாதிப்பு • செலவு • பயம் • குற்ற உணர்வு அதிகரித்துள்ள காரணத்தினால் **<u>பயிற்சி</u>** • வெது வெதுப்பான நீரில் கைகளைக் கழுவுங்கள் விரல்கள் தகர்த்துவிடும் முன் உலர வேண்டும்.			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• விரலின் மையத்தைவிட, ஓரத்தில் துளையிடவும் மையத்தில் நரம்புகள் குறைவாக இருக்கும். • போதுமான அளவிற்கு பெரிய துளையிட்டால்தான், இரத்தத்துளி கிடைக்கும். • இரத்த சோதனை கருவியை பின்பற்றவும் • பதிவு முடிவுகளை அறியவும்			
6	நீரிழிவு நோயின் பக்க விளைவுகள் என்ன	15 நிமிடம்	பக்கவிளைவுகள் **குறுகிய கால சிக்கல்கள்** நீரிழிவு நோயாளிக்கு மூன்று வகையான அவசர பக்கவிளைவுகள் ஏற்படும். **<u>நீரிழிவு கீட்டோ அசிடோசிஸ்</u>** இவை மிகவும் அவசரமான	கற்பித்தல்	கற்றுக் கொடுத்தல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			பக்கவிளைவும், இவற்றின் மூலம் நீரிழிவு நோயாளி, நீரிழிவு அமிலம் குறைபாடு மற்றும் சுயநினைவை இழத்தல் ஏற்படும். **<u>ஹைபர்கிளைசீமியா</u>** இவை அபாயமான பக்கவிளைவுகள் இன்சுலின் அளவு மிகவும் அதிகரிக்கும். **<u>காரணங்கள்</u>** • அதிகளவில் உணவு உட்கொளளுதல் • நீரிழிங்கான மருந்தை உட்கொள்ளாமல் தவிர்த்தல் • செயலிழப்பு • உடல் மன அழுத்தம் • இன்சுலின் உறிஞ்சுதல் குறைபாடு			
			<u>அறிகுறிகள்</u>	கற்பித்தல்	கற்றுக்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• உயர் இரத்த அழுத்த குளுகோஸ் அளவு • அதிக சிறுநீர் கழித்தல் • பலவீனம், சோர்வு • மங்கலான பார்வை, தலைவலி • குமட்டல் மற்றும் வாந்தி • அடிவயிற்று தசை பிடிப்பு **சிகிச்சை** • மருத்துவ ஆலோசனை பெற வேண்டும். • கட்டளையிட்டபடி மருந்துகள் தொடர்ச்சியாக அருந்த வேண்டும். • இரத்த சர்க்கரை அளவை அடிக்கடி சோதனை செய்ய வேண்டும். • மணிக்கொருமுறை தண்ணீர் அருந்த வேண்டும். **ஹைப்போகிளைசீமியா**		கொடுத்தல்	

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			இரத்த குளுகோஸ் அளவு குறைதல் 50 எம்.ஜி/ டெசி லிட்டருக்கு கீழ் இரத்த குளுக்கோஸ் அளவு குறையும்.			
			<u>காரணங்கள்</u> • உணவு அருந்தாமல் மது அருந்துதல் • மிக சிறிய உணவு உட்கொள்ளுதல் • நீரிழிவு மருந்துகள் அல்லாது உணவு நேரத்தில் அருந்துதல் • மருந்து மாற்றம் இல்லாமல் எடை இழத்தல். **<u>அறிகுறிகள்</u>** • இரத்த குளுகோஸ் அளவு 50 எம்.ஜி/ டெசி லிட்டருக்கும் கீழ் இருக்கும். • குளிர், விரல்கள், கால், வாயில்	கற்பித்தல்	கற்றுக் கொடுத்தல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			உணர்வின்மை • இதயதுடிப்பு அதிகரித்தல், தலைவலி • உணர்ச்சி மாற்றங்கள், பதட்டம் • அதிகப்படியாக வியர்வை, நடுக்கங்கள், தலைசுற்றல் • நிலையற்ற நடை, தெளிவற்ற பேச்சு, பசி, பார்வை மாற்றம், வலிப்பு			
			<u>சிகிச்சை</u> • உடனடியாக எளிமையான கார்போ ஹைட்ரேட்டை உட்கொள்ள வேண்டும். • சிறிதளவு சர்க்கரையை அருந்தவும் • மருத்துவரிடம் ஆலோசனை பெருதல் • நீம்ட கால பக்கவிளைவு	கற்பித்தல்	கற்றுக் கொடுத்தல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			மேக்ரோ வாஸ்குலார் விளைவுகள் மேக்ரோ வாஸ்குலார் பக்கவிளைவுகள் என்பது உடலில் பெரிய நரம்புகளை பாதிக்கும. இவற்றில் பாதிக்கப்படும் உறுப்புகள் என்னவென்றால், மூளை, இருதயம் மற்றும் வாஸ்குலார் நோய் **காரணங்கள்** • உடல் பருமன், புகை பிடித்தல், உயர் இரத்த அழுத்தம். • கொழுப்பு அதிகரித்தல்			
			நுண் இரத்த ஓட்டம் சிக்கல்கள் தீராத உயிர் இரத்த குளுக்கோஸ் நிலையினால் நரம்புகள், இரத்த நுண்குழாய்கள் தடித்தலாக தோன்றுகிறது. இவை	கற்பித்தல்	கற்றுக் கொடுத்தல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			கண், சிறுநீரகம், நரம்புகளை பாதிக்கும். **<u>விழித்திரை பக்கவிளைவுகள்</u>** கண்ணிலிருந்து சிறு நரம்புகள் பாதிப்படையும். இவற்றால் கண் பார்வை குறையும். நீண்ட காலமாக நீரிழிவு நோய் உள்ளவர்களுக்கு இவ்வகை பிரச்சனை தோன்றும். **<u>சிறுநீரகம் (நெப்ரோபதி)</u>** சிறுநீரகத்தில் குலோமருலை என்னும் இரத்த குழாய்கள் சேதம் அடைவதால் நெப்ரோபதி (சிறுநீரக சிக்கல் ஏற்படும்) **<u>நரம்புக் கோளாறு</u>** நீரிழிவு நோயாளிக்கு நரம்பு தேய்மானம் அடைவதனால் நரம்பு			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			சேதம் அடையும்.			
			<u>கால் பக்க விளைவுகள்</u> பாதம் பாதிப்பு என்பது நீரிழிவு நோயாளிகளுக்கு எளிதில் தோன்றக்கூடியவை. கால் பாதிப்படைந்தவர்களை மருத்துவமனையில் மிகவும் அதிகளவில் காணலாம். இப்பிரச்சனையினால் வீக்கமும் நேரிடும். **<u>காரணங்கள்</u>** • தோல் வெடிப்பு • மூட்டு தேய்மானம் • உடல் பருமன் • இரத்தம் உறைதல் குறைபாடு பிரச்சனை	கற்பித்தல்	கற்றுக் கொடுத்தல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• பலவீனமான நோய் எதிர்ப்பு செயல்பாடுகள் • 10 வருடத்திற்கு மேல் நீரிழிவு நோய் குறைபாடு இருத்தல். • நரம்பு பிரச்சனை			
7.	பாதங்களை பாதுகாக்கும் முறைகளை விவரி	10 நிமிடம்	பாதங்கள் பாதுகாக்கும் முறை • பாதங்ளை தினசரி சோப்பு மற்றும் சூடான தண்ணீரில் கழுவ வேண்டும். • பாதங்களை தினசரி ஆய்வு செய்ய வேண்டும். முக்கியமாக கால் விரல்கள் இடையில் காயம், வெட்டு, கொப்புளங்கள், வீக்கம் இருக்கிறதா என்று ஆய்வு செய்ய வேண்டும். • வேர்க்கும் காலில் லேசான பவுடர் பயன்படுத்தவும். • காயம் ஏற்பட்டால்	கற்பித்தல்	கற்றுக் கொடுத்தல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			வெதுவெதுப்பான தண்ணீரில் பாதங்களை கழுவியபின், கட்டப்போடவும். • பருத்தி ஆடையால் கட்டுபோடவும். • உயர் குதிக்கால் செருப்பு அணிதலை தவிர்க்கவும் • புழுக்கம் ஏற்படாமல் இருக்கும் ஆடையை அணியவும். • சூடான தண்ணீர் பாட்டிலை பாதத்தில் வைப்பதை தவிர்க்கவும். • தினசரி பாதத்திற்கு சிறிதளவு பயிற்சி அளிக்க வேண்டும். • அதிகளவில் உட்காறுதல் மற்றும் நின்று இருத்தலை தவிர்க்கவும்.			
			<u>மைக்ரோ செல்லுலார் ரப்பர் காலணி</u> மைக்ரோ செல்லுலார் ரப்பர் காலணி 15 இராசயணங்களால் உருவாக்கப்பட்டவை. அதிகளவில்	கற்பித்தல்	கற்றுக் கொடுத்தல்	கணிப்பொறி

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			காற்று நிரப்பப்பட்டு உள்ளன. இவை பாதத்திற்கு பாதுகாப்பு அளிக்கும். பொதுவாக ஒரு ஜோடி செருப்புகள் 18 முதல் 24 மாதங்கள் நீடிக்கும. இவற்றில் பின்வரும் குணங்கள் உள்ளன. • காலணியில் திடம் அதிகளவில் உள்ளன. • கால் எடை தாங்கும் • கையில் தைத்தல், மற்றும் வெட்டுதல் இல்லை. எனில் இவை எளில் அறுபடாது. **<u>நினைவில் வைக்க வேண்டிய முக்கிய புள்ளிகள்</u>** • ஆண்டிற்கு ஒருமுறை மருத்துவரை பரிசோதனை செய்ய வேண்டும். • ஆண்டிற்கு ஒருமுறை கண் மற்றும்			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			பல் பரிசோதனை செய்ய வேண்டும். • விருந்தும், விரதமும் தவிர்க்க வேண்டும். • வழக்கமான உடற்பயிற்சி எடை குறைப்பு • புகை மற்றும் மது தவிர்க்க வேண்டும். • வழக்கமான மருந்து உட்கொள்ள வேண்டும். • மருத்துவ அடையாள அட்டையை எடுத்துச் செல்லவும். • பாதம் பாதுகாக்க வேண்டும். • மருந்துகள் இரத்த சர்க்கரை குறைக்க மற்றும் பக்கவிளைவை தடுக்க உபயோகிக்கப்படுகிறது என்பது நோயாளி அறிய வேண்டும்.			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• நோயாளிகள் கூடுதல் மாத்திரைகள் எடுக்ககூடாது. • நோயாளிகள் மருந்துகளை தவறாமல் உட்கொள்ள வேண்டும். • தினசரி பாதம் மற்றும் உடல் பராமரிக்க வேண்டும். • காயம் 24 மணி நேரத்திற்குள் குணமடையவில்லை என்றால் மருத்துவரை அணுகவும். • பயணங்கள் முன்கூட்டியே திட்டமிடல் வேண்டும். • விமானம், ரயில், பஸ் மூலம் பயணம் செய்யும்போது நீரிழிவு நோயாளிக்கு தேவையானது எடுத்துக்கொள்ள வேண்டும். • சோர்வு அடையும்போது இரத்த குளுகோஸ் அளவை கண்காணிக்க வேண்டும்.			

வரிசை எண்	குறிப்பான நோக்கங்கள்	நேரம்	பொருளடக்கம்	ஆசிரியரின் செயல்கள்	கற்றுக் கொள்பவரின் செயல்கள்	ஒலி, ஒளி சார்ந்த ஊடகங்கள்
			• சிற்றுண்டி பொருட்களை வைத்திருக்க வேண்டும்.			

INFORMED CONSENT

Investigator : K.Chitra

Name of Participant :

Age/sex :

Date :

Name of the institution : Diabetes OPD,RGGGH,Chennai.

Title: "Assess the effectiveness of structured teaching programme on knowledge and attitude regarding life style modification among clients with type-2 diabetes mellitus attending Diabetology OPD at RGGGH,Chennai".

Documentation of the informed consent: (legal representative can sign if the participant is minor or competent).

- I_____ have read/it has been for me , the information in this form. I was free to ask questions and they have been answered.
- I have read and understood this consent form and the information provided to me.
- I have had the consent document explained in detail to me
- I have been explained about the nature of my study.
- My rights and responsibilities have been explained to me by the investigator.
- I agree to cooperate with the investigator
- I have not participated in any research study at any time.
- I am aware of the fact that I can opt out of the study at any time without having to give any reason
- I hereby give permission to the investigators to release the information obtained from me as a result of participation in this study to the regulatory authorities, government agencies and Institutional ethics committee. I understand that they are publicly presented.
- My identity will be kept confidential if my data are publicly presented.
- I am aware that I have any question during this study ; I should contact the concerned investigator .

Signature of Investigator Signature of Participants

Date Date

INFORMATION TO PARTICIPANTS

Title : "Assess the effectiveness of structured teaching programme on knowledge and attitude regarding life style modification among clients with type-2 diabetes mellitus attending diabetology OPD at RGGGH,Chennai".

Name of the participant :

Date :

Age/sex :

Investigator : K.Chitra

Name of the Institution : Rajiv Gandhi Govt General Hospital,Chennai

Enrolment No :

You are invited to take part in this study. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have any queries or concerns.

You are being asked to cooperative in this study being conducted in selected Diabetic OPD,RGGGH,Chennai.

What is the purpose of the research (explain briefly)

This research is conducted to evaluate the lifestyle modification of type 2 Diabetic clients attending diabetic OPD,RGGGH, Chennai. We have obtained permission from the Institutional Ethics Committee.

Study procedures

- Study will be conducted after approval of ethics committee
- A written formal permission will be obtained from authorities of Rajiv Gandhi Govt General Hospital, Chennai to conduct study
- The purpose of study will be explained to the participants.
- The investigation will obtain informed consent

- The investigator will assess the life style modification of type 2 Diabetic clients attending diabetic OPD,RGGGH,Chennai each participant before the procedure using a standarizd scale.
- The investigator will undergo training for in training center.
- It will be taught by the investigator daily.
- The procedure of will be explained to them with the help of lecture and video assisted.
- Following that the level of change in life style modification will be assessed after 30 days.

Possible benefits to other people

The result of the research may provide benefits to the type 2 diabetic clients and also empathetic care to them by investigator.

Confidentiality of the information obtained from you

You have the right to confidentially regarding the privacy of your personal details. The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

How will your decision not to participate in the study affect you?

Your decisions not to participate in this research study will not affect your activity of daily living , medical care of your relationship with investigator or the institution.

Can you decide to stop participating in this study once you start?

The participation in this research is purely voluntary and you have the right to withdraw from this study at anytime during course of the study without giving any reasons.

Your privacy in the research will be maintained throughout study. In the event of any publications or presentations resulting from the research, no personally identifiable information will be shared.

Signature of investigator Signature of Participants

Date Date

சுய ஒப்புதல் படிவம்

ஆராய்ச்சி தலைப்பு : முறையான நல கல்வி மூலம் வகை -2 நீரிழிவு நோயளிகளுக்கிடையே வாழ்க்கை முறையில் மாற்றுவதனால் ஏற்படும் விளைவுகள் பற்றிய ஆய்வு.

ஆய்வாளர் பெயர் : க.சித்ரா
பங்கேற்பாளர் பெயர் :
தேதி :
வயது / பால் :

ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சுயநினைவுடனும் சம்மதிக்கிறேன்.

ஆய்வாளர் மேற்கொள்ள போகும் பரிசோதனைகளை மிக தெளிவாக விளக்கிக்கூறினார்.

எனக்கு விருப்பமில்லாத பட்சத்தில் ஆராய்ச்சியிலிந்து எந்நேரமும் விலகலாம் என்பதையும் ஆய்வாளர் மூலம் அறிந்து கொண்டேன்.

இந்த ஆராய்ச்சி ஒப்புதல் கடிதத்தில் உள்ள விவரங்களை நன்கு புரிந்து கொண்டேன். எனது உரிமைகள் மற்றும் கடமைகள் ஆராய்ச்சியாளர் மூலம் விளக்கபட்டது.

நான் ஆராய்ச்சியாருடன் ஒத்துழைக்க சம்மதிக்கிறேன். எனக்கு ஏதேனும் உடல்நலகுறைவு ஏற்பபட்டால் ஆராய்ச்சியாளரிடம் தெரிவிப்பேன்.

நான் வேறு எந்த ஆராய்ச்சிலும் தற்சமயம் இடம்பெறவில்லை. என்பதை தெரிவித்துகொள்கிறேன்.

இந்த ஆராய்ச்சியின் தகவல்களை வெளியிட சம்மதிக்கிறேன். அப்படி வெளியிடும்போது என் அடையாளம் வெளிவராது என்பதை அறிவேன்.

எனக்கு இந்த ஒப்புதல் கடிதத்தின் நகல் கொடுக்கபட்டது.

ஆய்வாளர் கையொப்பம் பங்கேற்பாளர் கையொப்பம்

தேதி தேதி

ஆராய்ச்சி தகவல் தாள்

ஆராய்ச்சி தலைப்பு : முறையான நல கல்வி மூலம் வகை -2 நீரிழிவு நோயளிக்களுக்கிடையே வாழ்க்கை முறையில் மாற்றுவதனால் ஏற்படும் விளைவுகள்

பற்றிய ஆய்வு
ஆய்வாளர் பெயர் : க.சித்ரா
பங்கேற்பார் பெயர் :
தேதி :
வயது / பால் :

ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சம்மதிக்கலம். இதில் பங்கேற்பதன் நோக்கம்.

இந்த ஆராய்ச்சியில் தகவல்களை தெரிந்து கொள்வதற்காகவும். அதனை பயன்படுத்துவதற்ககாக மட்டும் தான்.

இந்த ஆராய்ச்சியின் நோக்கம், செவிலியர்களுக்கிடையே பணியில் நிறைவு, மற்றும் எரிச்சலூட்டும் தன்மை குறித்த ஆய்வு.

ஆராய்ச்சி மேற்க்கொள்ளும் முறை

இந்த ஆராய்ச்சியில் முறையான நல கல்வி மூலம் வகை -2 நீரிழிவு நோயாளிகளுக்கிடையே வாழ்க்கை முறையில் மாற்றுவதனால் ஏற்படும் விளைவிகள் ஆய்வு.

இதனால் ஆய்வாளருக்கான பயன்.

இந்த ஆய்விற்க்குபின் முறையான நல கல்வி மூலம் வகை -2 நீரிழிவு நோயாளிகளுக்கிடையே வாழ்க்கை முறையில் மாற்றுவதனால் ஏற்படும் விளைவுகள் மற்றும் வாழ்க்கை முறையில் மாற்றம் பற்றி கற்றுதந்ததன் தாக்கத்தினை அறியலம்.

இதனால் பங்கேற்பாளருக்கான பயன்.

இந்த ஆய்வு வகை -2 நீரிழிவு நோயளிகளுக்கிடையே வாழ்க்கை முறையில் கற்றுதந்த பின் பயன்படுதிவதினால் ஏற்படும் விளைவுகள் மற்றும் வாழ்க்கை முறையில் மாற்றம் பற்றி கற்றுதந்ததன் தாக்கத்தினை அறியலாம்.

ஆராச்சியில் பங்கேற்கவில்லை என்றாலும், உங்களின் சராசரி வாழ்க்கை முறையில் எந்த வித மாற்றமும் ஏற்படாது என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் பங்கேற்க விருப்பம் இல்லை என்றால் உங்களின் முழுமனதுடன் நீங்கள் இந்த ஆராய்ச்சியில் இருந்து விலகி கொள்ளலாம் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் உங்களின் தகவல்களை பாதுகாப்பாக வைத்துகொள்கிறேன் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியின் தகவல்களை வெளியிடும் போது, உங்களை பற்றிய அடையாளங்கள் வெளிவராது என்பதை உறுதி கூறுகிறேன்.

ஆய்வாளர் கையொப்பம் பங்கேற்பாளர் கையொப்பம்

தேதி தேதி

Demographic Variables

S.No	Sex	Age	Marital	Education (Std)	Employment	Nature of Work	Income	Family
1	Female	51	Married	7	Unemployed	Moderate	8000	Joint
2	Female	42	Married	5	Unemployed	Moderate	8000	Nuclear
3	Male	45	Married	12	Unemployed	Sedentary	10000	Nuclear
4	Male	62	Married	5	Unemployed	Sedentary	5000	Extend
5	Male	50	Married	6	Pensioner	Sedentary	10000	Joint
6	Male	45	Married	10	Pensioner	Sedentary	10000	Nuclear
7	Female	40	Married	12	Employed	Unemployed/ Home Maker	10000	Joint
8	Female	55	Married	College	Employed	Unemployed/ Home Maker	10000	Joint
9	Female	65	Married	5	Own Business	Unemployed/ Home Maker	8000	Nuclear
10	Female	39	Married	College	Unemployed	Unemployed/ Home Maker	8000	Extend
11	Female	49	Married	5	Unemployed	Unemployed/ Home Maker	10000	Extend
12	Male	52	Married	12	Employed	Unemployed/ Home Maker	8000	Nuclear
13	Female	39	Married	College	Unemployed	Sedentary	10000	Extend
14	Male	52	Married	12	Employed	Sedentary	10000	Extend
15	Male	31	Married	College	Own Business	Sedentary	10000	Joint
16	Female	36	Married	College	Own Business	Unemployed/ Home Maker	10000	Nuclear
17	Male	45	Married	College	Unemployed	Heavy	10000	Nuclear
18	Male	49	Married	College	Unemployed	Heavy	10000	Extend
19	Male	69	e	College	Unemployed	Moderate	10000	Extend
20	Female	36	Married	12	Unemployed	Heavy	8000	Nuclear
21	Male	45	Married	10	Unemployed	Heavy	8000	Nuclear
22	Male	57	Married	8	Own Business	Heavy	10000	Joint
23	Male	46	Married	College	Own Business	Heavy	8000	Joint
24	Female	67	Married	10	Unemployed	Unemployed/ Home Maker	8000	Extend
25	Female	38	Married	10	Unemployed	Unemployed/ Home Maker	8000	Nuclear
26	Male	56	Married	10	Unemployed	Unemployed/ Home Maker	10000	Joint
27	Female	56	Married	10	Unemployed	Unemployed/ Home Maker	8000	Joint
28	Female	47	Married	8	Unemployed	Unemployed/ Home Maker	8000	Joint
29	Female	48	Married	12	Unemployed	Unemployed/ Home Maker	10000	Nuclear
30	Female	65	Separated	5	Unemployed	Unemployed/ Home Maker	8000	Extend
31	Female	55	Married	5	Unemployed	Moderate	8000	Extend
32	Female	48	Married	10	Unemployed	Moderate	8000	Nuclear
33	Female	48	Married	10	Unemployed	Sedentary	8000	Joint
34	Female	55	Married	8	Unemployed	Sedentary	8000	Joint
35	Female	55	Married	12	Unemployed	Sedentary	10000	Joint

S.No	Sex	Age	Marital	Education (Std)	Employment	Nature of Work	Income	Family
36	Male	39	Married	College	Pensioner	Sedentary	10000	Joint
37	Male	50	Married	10	Pensioner	Unemployed/ Home Maker	8000	Joint
38	Female	40	Married	College	Employed	Unemployed/ Home Maker	8000	Nuclear
39	Male	40	Married	10	Employed	Unemployed/ Home Maker	8000	Nuclear
40	Female	60	Married	No	Own Business	Unemployed/ Home Maker	8000	Nuclear
41	Female	57	Married	8	Own Business	Heavy	8000	Extend
42	Male	52	Married	10	Employed	Moderate	8000	Joint
43	Female	43	Married	10	Unemployed	Moderate	10000	Joint
44	Female	32	Married	College	Own Business	Unemployed/ Home Maker	10000	Nuclear
45	Female	37	Married	College	Own Business	Sedentary	10000	Nuclear
46	Male	31	Married	College	Unemployed	Sedentary	10000	Nuclear
47	Female	49	Married	12	Unemployed	Moderate	10000	Nuclear
48	Male	35	Married	College	Unemployed	Moderate	10000	Nuclear
49	Male	60	Married	10	Own Business	Sedentary	8000	Joint
50	Female	47	Married	12	Own Business	Sedentary	8000	Extend
51	Female	43	Married	10	Unemployed	Moderate	8000	Nuclear
52	Female	55	Married	5	Unemployed	Heavy	8000	Nuclear
53	Male	55	Married	8	Unemployed	Heavy	5000	Extend
54	Male	40	Married	10	Employed	Moderate	8000	Nuclear
55	Male	75	Separated	No	Unemployed	Heavy	8000	Extend
56	Male	26	Separated	College	Unemployed	Moderate	8000	Nuclear
57	Female	42	Married	12	Unemployed	Unemployed/ Home Maker	5000	Nuclear
58	Male	48	Married	10	Unemployed	Heavy	6000	Joint
59	Male	58	Divorced	10	Unemployed	Moderate	8000	Joint
60	Female	50	Married	5	Unemployed	Sedentary	8000	Joint

	Clinical Variables							Smoking			Alcohol			Weight		
S.No	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9
1	a	b	a	a	a	b	b	b	b	b	b	b	b	b	c	a
2	b	a	a	b	b	a	b	b	b	b	b	b	b	a	c	b
3	a	a	b	b	a	a	b	b	a	a	a	a	a	b	a	c
4	a	a	a	a	b	b	b	a	b	a	a	c	c	a	a	a
5	a	a	a	b	b	b	b	b	b	b	b	b	b	c	c	b
6	b	b	b	b	b	b	b	b	b	b	b	b	b	c	a	b
7	a	a	a	a	b	b	b	a	a	a	a	a	a	b	a	a
8	b	a	a	b	b	b	b	b	b	b	b	b	b	a	a	a
9	b	b	b	b	b	b	b	b	b	b	b	b	b	b	a	a
10	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a	a
11	a	b	a	b	a	a	b	a	a	a	a	a	b	b	c	c
12	b	a	b	b	a	a	b	a	a	a	a	a	b	c	c	c
13	b	a	b	b	a	a	b	b	b	b	b	b	b	a	b	c
14	b	a	a	b	b	a	b	b	b	b	b	b	b	c	c	a
15	a	a	b	b	a	a	a	a	a	a	a	a	a	b	b	c
16	b	b	b	a	a	a	a	b	b	b	b	b	b	a	b	c
17	a	b	b	b	b	a	b	a	b	b	b	b	b	c	c	b
18	a	a	a	b	b	a	a	a	a	a	a	a	a	b	b	b
19	b	b	b	b	b	b	b	b	b	b	b	b	b	a	a	b
20	b	a	a	b	a	a	b	b	b	b	b	b	b	c	c	b
21	a	a	a	b	b	a	a	a	a	a	a	a	a	a	a	a
22	a	b	b	a	a	b	b	a	a	a	a	a	a	a	a	a
23	a	b	b	b	b	b	b	a	a	a	a	a	a	a	a	a
24	b	b	b	a	b	a	b	b	b	b	b	b	b	a	a	a
25	b	b	b	b	a	a	b	b	b	b	b	b	b	a	a	a
26	b	b	b	b	b	a	a	b	b	b	b	b	b	a	a	a
27	b	a	a	b	b	b	a	b	b	b	b	b	b	a	b	c
28	b	a	a	b	b	a	a	b	b	b	b	b	b	a	a	a
29	b	b	b	a	b	b	b	b	b	b	b	b	b	a	a	a
30	b	a	a	b	b	b	b	b	b	b	b	b	b	b	a	c

	Clinical Variables							Smoking			Alcohol			Weight		
S.No	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9
31	a	b	a	a	b	b	b	b	b	b	b	b	b	b	c	a
32	b	a	a	b	b	a	b	b	b	b	b	b	b	a	c	b
33	a	a	b	b	a	b	b	b	a	a	a	a	a	b	a	a
34	a	a	a	a	a	b	b	b	b	b	b	b	b	c	c	b
35	a	a	a	a	b	b	b	a	a	a	a	a	a	b	c	a
36	b	b	b	b	b	b	b	b	b	b	b	b	b	c	a	b
37	a	a	a	a	a	b	b	b	b	b	b	b	b	c	c	b
38	b	a	a	b	b	a	a	b	b	b	b	b	b	a	a	a
39	b	b	b	b	b	b	b	b	b	b	b	b	b	b	a	a
40	a	b	a	a	a	a	a	a	a	a	a	a	a	a	a	a
41	a	a	a	b	a	a	a	b	a	a	a	a	a	b	b	a
42	b	a	b	b	a	a	b	a	a	a	a	a	a	a	a	a
43	b	a	b	b	a	a	b	a	a	a	a	a	b	c	c	a
44	b	a	a	b	b	a	b	b	b	b	b	b	c	a	c	a
45	a	a	b	b	a	a	a	b	b	b	b	b	b	c	c	b
46	b	b	b	a	b	a	b	a	b	b	b	b	b	c	c	b
47	a	b	b	b	a	b	b	a	b	b	b	b	b	a	b	c
48	a	a	a	b	b	a	a	a	a	a	a	a	a	b	b	b
49	b	b	b	b	b	b	b	b	b	b	b	b	b	a	d	b
50	b	a	a	b	a	a	b	b	b	b	b	b	b	a	a	b
51	a	a	a	b	b	b	b	a	a	a	a	a	a	a	a	a
52	a	b	b	a	a	b	a	a	a	a	a	a	a	b	b	b
53	a	b	b	b	b	b	b	a	a	a	a	a	a	a	a	a
54	b	b	b	a	b	b	b	a	a	a	a	a	a	a	a	a
55	b	b	b	b	a	b	b	b	b	b	b	b	b	a	a	a
56	b	b	b	b	b	b	b	b	a	b	b	b	b	b	a	a
57	b	b	a	b	b	a	a	b	b	b	b	b	b	a	a	a
58	b	a	a	b	b	a	a	b	b	b	b	b	b	a	a	a
59	b	b														
60	b	a	b	b	b	b	b	b	b	b	b	b	a	b	a	c

SECTION-C: PRE TEST

S.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	26	17	18	19	20	21	22	23	24	25	Total	%
1	1	0	1	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	1	0	1	13	52
2	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	10	40
3	1	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	0	1	0	1	9	36
4	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	10	40
5	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	1	9	36
6	0	1	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	10	40
7	1	0	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	1	11	44
8	1	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	1	12	48
9	1	0	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	0	0	1	0	1	0	0	9	36
10	1	1	0	1	0	0	1	1	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	1	13	52
11	0	1	1	1	1	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	15	60
12	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	13	52
13	0	1	0	0	1	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	11	44
14	1	0	1	1	0	1	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	1	1	13	52
15	1	1	0	1	0	0	1	0	1	0	1	1	0	1	0	1	0	1	1	0	1	1	0	1	1	15	60
16	1	0	1	0	1	1	0	1	0	1	0	0	1	1	0	0	1	1	0	1	0	0	1	1	0	13	52
17	0	1	0	1	1	0	1	0	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	1	0	12	48
18	1	0	1	1	0	1	0	0	1	0	0	1	0	1	1	0	0	1		0	0	1	0	1	1	12	48
19	0	1	0	1	0	0	1	1	0	0	1	0	1	0	0	1	0	0	1	1	1	0	1	0	0	11	44
20	1	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	1	1	9	36
21	0	1	0	0	1	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	1	0	8	32
22	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	7	28
23	1	0	1	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	10	40
24	0	1	1	0	0	1	0	1	0	0	1	0	1	0	0	1	1	0	0	1	0	1	0	1	0	11	44
25	1	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	1	10	40
26	0	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	0	9	36
27	1	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1	8	32
28	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	9	36
29	1	0	0	1	0	0	1	0	0	0	1	0	0	1	0	1	0	0	1	1	0	0	1	0	1	10	40
30	0	1	0	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	1	11	44
31	1	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	12	48
32	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	1	17	68
33	1	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	13	52
34	1	1	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	1	14	56
35	0	1	0	1	0	1	0	0	0		0	1	0	0	1	0	1	0	1	0	1	0	0	1	0	10	40

S.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	26	17	18	19	20	21	22	23	24	25	Total	%
36	1	0	1	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	1	0	0	1	11	44
37	1	1	0	1	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	1	12	48
38	0	1	1	0	1	0	1	0	0	1	0	0	1	0	1	1	0	0	0	1	0	1	1	1	1	13	52
39	1	0	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	10	40
40	1	1	0	1	1	0	1	1	1	0	1	1	1	0	1	0	1	0	1	0	1	0	1	1	1	17	68
41	0	1	1	0	0	1	1	0	0	1	0	0	0	1	0	1	0	1	0	0	1	1	0	0	0	10	40
42	1	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	1	0	1	0	0	1	0	0	1	9	36
43	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	4	16
44	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0		0	1	0	0	0	0	0	0	0	3	12
45	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	1	7	28
46	1	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1	9	36
47	1	0	1	0	0	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	1	0	0	1	10	40
48	0	1	0	1	1	0	0	1	0	0	0	1	0	0	1	0	1	1	0	0	1	0	1	1	0	11	44
49	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	1	6	24
50	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	12
51	1	0	1	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	1	10	40
52	1	1	0	0	1	0	0	1	0	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0	11	44
53	0	1	0	1	0	0	1	0	0	1	1	0	0	0	1	1	0	0	0	1	1	0	0	1	1	11	44
54	1	1	1	0	1	1	0	1	1	0	0	1	1	1	0	0	1	0	1	0	0	1	1	0	1	15	60
55	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	1	10	40
56	0	1	1	0	1	1	0	1	0	0	1	0	0	1	0	1	0	1	1	0	0	1	1	0	1	13	52
57	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	1	0	0	1	0	0	10	40
58	1	0	1	0	1	0	0	1	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	9	36
59	0	1	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	10	40
60	1		1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	0	1	1	0	11	44

SECTION-C: POST TEST

S.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	26	17	18	19	20	21	22	23	24	25	Total	%
1	1	0	1	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0	1	1	10	40
2	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	9	36
3	1	0	1	0	0	1	1	0	1	0	1	0	1	0	0	1	0	1	1	1	0	1	0	0	1	13	52
4	0	1	0	1	0	0	0	1	0	1	0	1	0	0	0	0	1	0	0	0	1	0	1	1	1	10	40
5	1	0	1	0	1	0	1	0	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	11	44
6	1	1	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	12	48
7	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	13	52
8	1	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	0	0	1	0	1	0	1	0	1	10	40
9	1	1	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	0	1	0	1	1	17	68
10	1	0	1	1	0	1	0	1	1	0	1	1	0	1	0	1	0	1	0	1	0	1	1	0	1	15	60
11	0	1	0	0	1	0	1	0	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	1	1	13	52
12	1	0	1	0	1	1	0	0	1	0	0	1	1	0	1	1	0	1	1	0	1	1	0	1	0	14	56
13	0	1	0	1	1	0	1	0	0	1	1	0	0	1	0	1	1	0	0	1	0	0	1	1	1	13	52
14	1	1	1	0	0	1	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	12	48
15	0	1	0	0	1	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0	1	1	1	0	12	48
16	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	1	0	1	1	0	0	1	0	1	1	13	52
17	1	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0	1	0	1	1	0	1	1	0	1	14	56
18	0	1	1	0	1	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	1	1	1	13	52
19	1	0	0	1	0	1	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	1	0	1	1	12	48
20	1	1	1	0	0	0	1	0	1	1	0	1	0	0	1	0	1	0	0	1	0	1	1	0	1	13	52
21	1	0	1	1	1	0	0	1	0	1	1	0	1	0	0	1	0	1	1	0	1	0	1	0	1	14	56
22	1	1	0	0	1	1	1	0	1	0	1	1	0	1	1	0	1	0	0	1	0	1	0	1	1	156	624
23	1	1	0	1	0	1	0	1	1	0	0	1	1	0	1	1	0	1	1	0	1	1	1	1	0	16	64
24	1	1	1	0	1	0	1	0	1	0	1	0	1	1	0	1	1	0	1	1	0	1	1	1	1	17	68
25	1	1	0	1	0	1	0	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	0	1	1	18	72
26	1	1	1	0	1	0	1	0	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	19	76
27	0	0	1	0	1	0	1	1	0	1	0	1	0	0	1	0	0	1	0	1	0	1	0	1	0	11	44
28	1	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	1	0	1	0	0	0	0	9	36
29	0	1	0	0	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	1	7	28
30	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	1	0	1	10	40
31	1	1	1	1	1	1	0	1	0	1	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	20	80

S.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	26	17	18	19	20	21	22	23	24	25	Total	%
32	1	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1	0	1	0	1	1	0	1	19	76
33	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	21	84
34	1	0	1	0	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	20	80
35	0	1	0	1	0	1	0	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	1	1	18	72
36	1	1	1	0	1	0	1	0	1	0	1	1	1	1	0	1	0	1	1	1	1	0	1	1	0	19	76
37	1	1	0	1	1	1	0	1	0	1	0	1	0	1	0	1	1	0	1	0	1	1	1	1	1	15	60
38	1	1	1	1	1	1	1	1	0	1	1	0	1	0	1	0	1	0	1	1	0	1	1	1	1	17	68
39	1	1	1	1	1	0	1	1	0	1	1	1	1	1	0	1	0	1	1	1	1	0	1	1	1	17	68
40	1	1	1	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	1	1	1	1	0	1	1	19	76
41	1	1	1	1	1	1	0	1	0	1	1	1	0	1	0	1	0	1	0	1	0	1	1	1	1	20	80
42	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	0	1	1	1	0	1	1	1	1	1	17	68
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44	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	0	1	1	1	0	1	1	1	1	1	19	76
45	1	1	1	1	0	1	0	1	0	1	0	1	0	0	1	1	0	1	0	1	1	1	1	1	1	17	68
46	0	1	1	1	0	1	1	0	1	0	1	0	1	1	0	0	1	0	1	1	1	1	1	0	1	16	64
47	1	0	1	0	1	1	0	1	0	1	0	1	0	1	1	1	0	1	1	1	1	0	0	0	1	15	60
48	1	1	1	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	1	1	1	1	16	64
49	1	1	0	1	0	1	0	1	0	1	0	1	1	1	0	1	1	1	1	0	1	1	1	0	1	17	68
50	1	1	1	1	1	0	1	1	1	0	1	0	1	0	1	0	1	1	1	1	0	1	1	1	1	19	76
51	0	1	0	1	0	1	0	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	0	1	123	492
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53	1	1	1	1	1	1	1	1	0	1	1	0	1	0	0	1	0	1	0	1	0	1	1	1	1	18	72
54	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	0	1	0	1	0	1	0	1	1	1	19	76
55	1	1	1	1	1	0	1	0	1	0	1	0	1	1	0	1	1	1	1	1	0	1	1	1	1	17	68
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58	1	1	1	1	0	1	0	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0	20	80
59	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	21	84
60	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	22	88

ATTITUDE-PRE

S.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	26	17	18	19	20
1	2	1	5	3	2	2	3	3	4	1	1	3	2	2	5	3	2	4	4	2
2	4	5	2	2	3	4	4	4	2	4	2	1	6	3	2	4	1	2	3	4
3	4	3	3	3	7	5	3	5	2	4	10	12	5	3	8	6	4	2	10	8
4	6	5	4	5	3	6	3	4	7	6	5	2	5	8	3	5	10	5	2	4
5	4	6	7	7	5	3	7	4	5	5	2	2	2	4	2	2	3	7	1	2

For 60 samples:

Grade		Marks	Percentage
1	Strongly Disagree	162	13.5
2	Disagree	186	15.5
3	Neigther Agree or Disagree	321	26.75
4	Agree	294	24.5
5	Strongly Agree	237	19.75

-

ATTITUDE-POST

S.No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	26	17	18	19	20
1	3	2	2	2	2	3	2	2	3	2	2	1	2	4	2	4	2	2	4	3
2	2	2	2	4	4	4	3	4	3	5	5	2	4	3	3	4	3	3	2	4
3	5	6	4	4	5	3	6	5	5	5	3	6	2	3	5	3	4	6	4	2
4	8	7	8	6	7	8	7	6	8	6	7	7	8	8	7	7	8	6	6	8
5	2	3	4	4	2	2	2	3	1	2	4	4	4	2	3	2	3	3	4	3

For 60 Samples:

	Grade	Marks	Percentage
1	Strongly Disagree	147	12.25
2	Disagree	198	16.5
3	Neigther Agree or Disagree	246	21.25
4	Agree	429	35.75
5	Strongly Agree	171	14.25

INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE, CHENNAI 600 003

EC Reg.No.ECR/270/Inst./TN/2013
Telephone No.044 25305301
Fax: 011 25363970

CERTIFICATE OF APPROVAL

To

K.Chitra
M.Sc. (N) I Year Student
College of Nursing
Madras Medical College
Chennai 600 003

Dear K.Chitra,

The Institutional Ethics Committee has considered your request and approved your study titled **"A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING LIFE STYLE MODIFICATION AMONG CLIENTS WITH TYPE – 2 DIABETES MELLITUS ATTENDING DIABETOLOGY OUTPATIENT DEPARTMENT AT RAJIV GANDHI GOVERNMENT GENERAL HOSPITAL, CHENNAI 3 " - NO.02072017**

The following members of Ethics Committee were present in the meeting hold on **11.07.2017** conducted at Madras Medical College, Chennai 3

1. Prof.Dr.C.Rajendran, MD., :Chairperson
2. Prof.R.Narayana Babu,MD.,DCH., Dean,MMC,Ch-3 : Deputy Chairperson
3. Prof.Sudha Seshayyan,MD., Vice Principal,MMC,Ch-3 :Member Secretary
4. Prof.S.Mayilvahanan,MD,Director,Inst. of Int.Med,MMC, Ch-3 : Member
5. Prof.A.Pandiya Raj,Director, Inst. of Gen.Surgery,MMC : Member
6. Prof.Rema Chandramohan,Prof.of Paediatrics,ICH,Chennai : Member
7. Prof. Susila, Director, Inst. of Pharmacology,MMC,Ch-3 : Member
8. Thiru S.Govindasamy, BA.,BL,High Court,Chennai : Lawyer
9. Tmt.Arnold Saulina, MA.,MSW., :Social Scientist
10. Tmt.J.Rajalakshmi, JAO,MMC, Ch-3 : Lay Person

We approve the proposal to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

Member Secretary – Ethics Committee

MEMBER SECRETARY
INSTITUTIONAL ETHICS COMMITTEE
MADRAS MEDICAL COLLEGE
CHENNAI-600 003

REQUISITION LETTER

From

Chitra.K
M.Sc.(N) – II-year student,
College of Nursing
Madras Medical College
Chennai-03

To

The Director,
Rajiv Gandhi government general hospital,
Madras Medical college, Chennai-3.

Through,
Principal,
College of Nursing, Madras Medical College, Chennai – 03

Forwarded
6.12.17.
for

Respected Sir/Madam,

Sub : Requesting permission to conduct research at Rajiv Gandhi Government General Hospital,Chennai-03.

PRINCIPAL
COLLEGE OF NURSING
MADRAS MEDICAL COLLEGE
CHENNAI-600 003.

I M.Sc. Nursing II-year student has to conduct the research study for the fulfillment of M.Sc.(N) Programme. My topic is **"A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge and attitude regarding lifestyle modification among clients with type-2 diabetes mellitus attending diabetology outpatient department at Rajiv Gandhi Government General Hospital,Chennai-3".** The data collection period is from 02/01/2018 to 27/01/2018 at 8am-4pm. I assure that I will not disturb the routine activities of the outpatient department/ward.

With due respect, I request your good self to kindly permit me to conduct this study.

Thanking you

5/12/17.

Signature of H.O.D

Yours faithfully,

(CHITRA.K)

Encl: Copy of Institutional Ethical Committee Approval Letter

12/12/2017

Dr. P. DHARMARAJAN, M.D., D.Diab.
Director and Professor
Institute of Diabetology
Madras Medical College &
Government General Hospital
Chennai - 600 003

CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool constructed by CHITRA.K, MSc (Nursing) II year, College of Nursing, Madras Medical College which is to be used in her study titled "A study to assess the effectiveness structured teaching programme on knowledge and attitude regarding lifestyle modification among clients with Type 2 Diabetes mellitus attending diabetology out patient department at Rajiv Gandhi Government General Hospital,Chennai-3" has been validated by the undersigned.The suggestions and modification given by me will be incorporated by the investigator in concern with their respective guide. Then can proceed to do the research.

Signature with Seal

Dr. P. DHARMARAJAN, M.D., D.Diab.
Director and Professor
Institute of Diabetology
Madras Medical College &
Government General Hospital
Chennai - 600 003

Name: Dr. P. DHARMARAJAN

Designation Director & Prof
I/c MMC

College MMC & RGGGH.

CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool constructed by K.ChitraM.Sc., (Nursing) II year, College of Nursing, Madras Medical College which is to be used in her study titled, **"A Study to evaluate the effectiveness of structure teaching programme on knowledge regarding life style modification among type 2 diabetes mellitus in outpatient department at RGGGH Chennai-3"** has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

Signature with seal

Apollo College of Nursing Chennai - 600 095

Name : Mrs. Lizy Sonia,

Designation : Vice Principal

College : Apollo College of Nursing,

Chennai.- 95

Place:

Date:

CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool constructed by K.ChitraM.Sc., (Nursing) II year, College of Nursing, Madras Medical College which is to be used in her study titled, **"A Study to evaluate the effectiveness of structure teaching programme on knowledge regarding life style modification among type 2 diabetes mellitus in outpatient department at RGGGH Chennai-3"** has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

29/12/17

Signature with seal

PRINCIPAL
MADHA COLLEGE OF NURSING
MADHA NAGAR, KUNDRATHUR,
CHENNAI - 600 069
PHONE : 24780736

Name : Dr. B. TamilarasiM.Sc(N), Ph.D

Designation : Principal

College : Madha College of Nursing,
Chennai.

MADHA COLLEGE OF NURSING
CHENNAI - 600 069

Place:

28 DEC 2017

Date:

CERTIFICATE OF CONTENT VALIDITY

This is to certify that the tool constructed by K.Chitra, M.Sc., (Nursing) II year, College of Nursing, Madras Medical College which is to be used in her study titled, **"A Study to assess the effectiveness of Structure Teaching Programme of Knowledge and Attitude regarding Life Style Modification among Type-II Diabetes Mellitus at Out Patient Department, Rajiv Gandhi Govt. General Hospital, Chennai-3"** has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

Signature with seal 31/1/18

B. SUDHAKARAN, M.A.,M.Phil.,(Cl.PSY),
PGDGC,PGDHRM,MIACP.,
RCI No A07047
Asst. Professor of Clinical Psychology
Institute of Mental Health
Kilpauk Chennai-600 010.

Name: B. SUDHAKARAN

Designation: Asst. Prof. of Psychology

College: Institute of Mental Health

Place: Chennai

Date: 31/1/18

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation "A study to Assess the effectiveness of structured teaching programme on knowledge and attitude regarding life style modification among type 2 diabetes mellitus at RGGGH, Chennai-3", done by CHITRA .K, M.Sc (N)-II year student of College of Nursing, Madras Medical College, Chennai – 3 is edited for English language appropriateness.

SIGNATURE : M. Dhanalakshmi

DESIGNATION : M. DHANALAKSHMI, M.A., M Phil
Asst. Professor
Dept. of English
Madras Medical College
Chennai-600 003

SEAL :

CERTIFICATE OF TAMIL EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation **"A study to Assess the effectiveness of structured teaching programme on knowledge and attitude regarding life style modification among type 2 diabetes mellitus at RGGGH, chennai-3".** Done by **CHITRA.K** M.Sc (N)-II year student of College of Nursing, Madras Medical College, Chennai-3 is edited for Tamil language appropriateness.

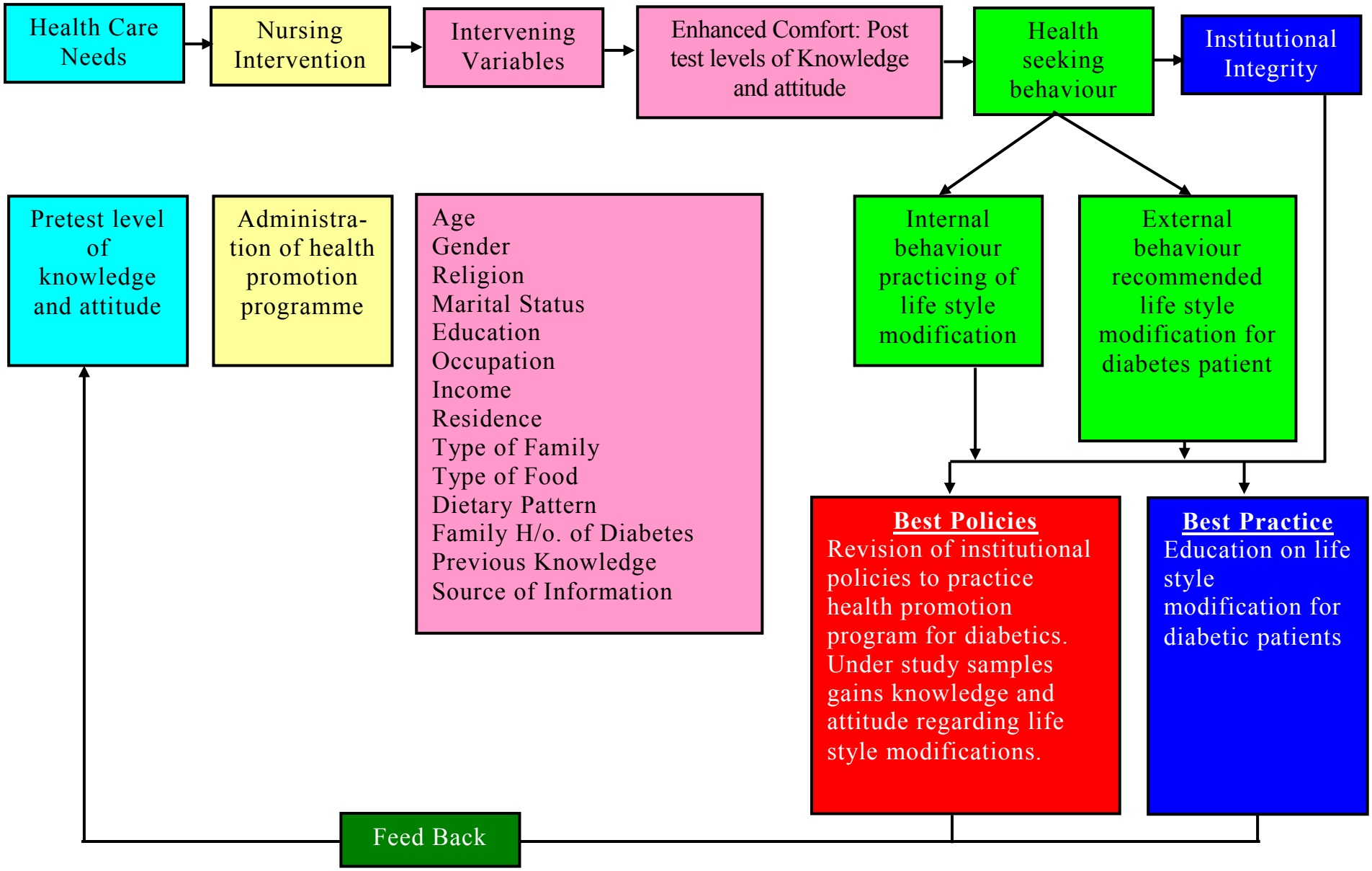
Signature

Asst. Professor
Designation

Seal

முனைவர் மா. வசந்தகுமாரி
உதவிப்பேராசிரியர், தமிழ்த்துறை,
விவேகானந்தா கலை மற்றும் அறிவியல்
கல்லூரி (தன்னாட்சி)
ளையம்பாளையம், திருச்செங்கோடு-637 205.

Figure 1.1: CONCEPTUAL FRAMEWORK KOLCABA'S THEORY OF COMFORT



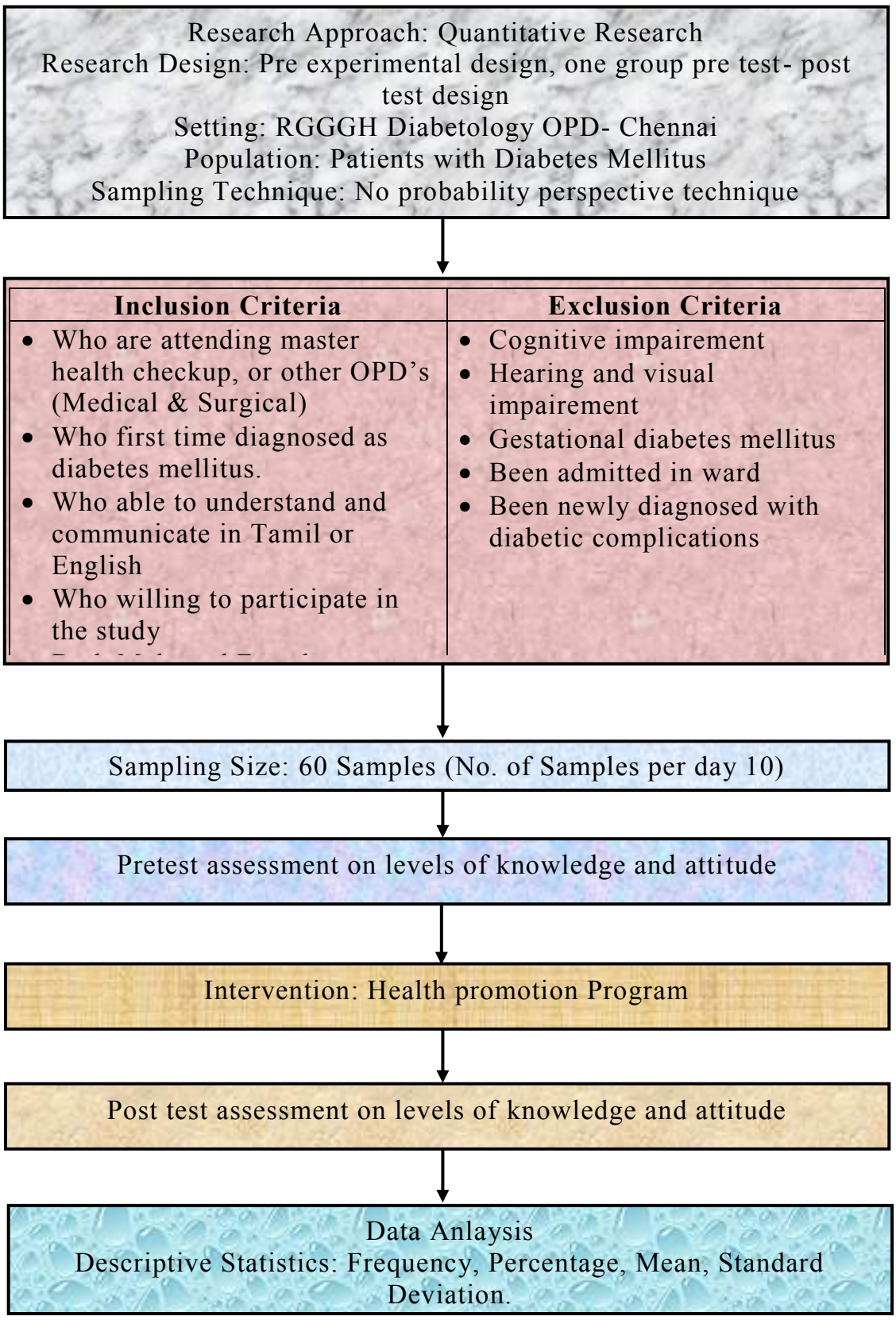


Figure 3.1SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY

Fig-4.1

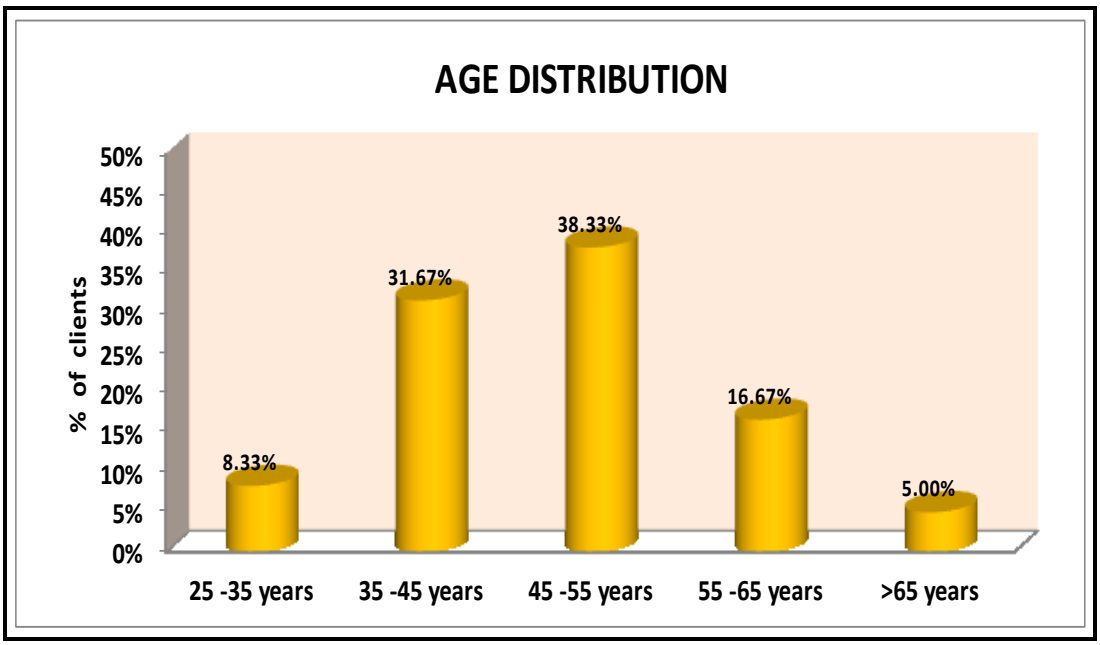

AGE DISTRIBUTION
% of clients
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
8.33%
31.67%
38.33%
16.67%
5.00%
25 -35 years
35 -45 years
45 -55 years
55 -65 years
>65 years

Fig-4.2

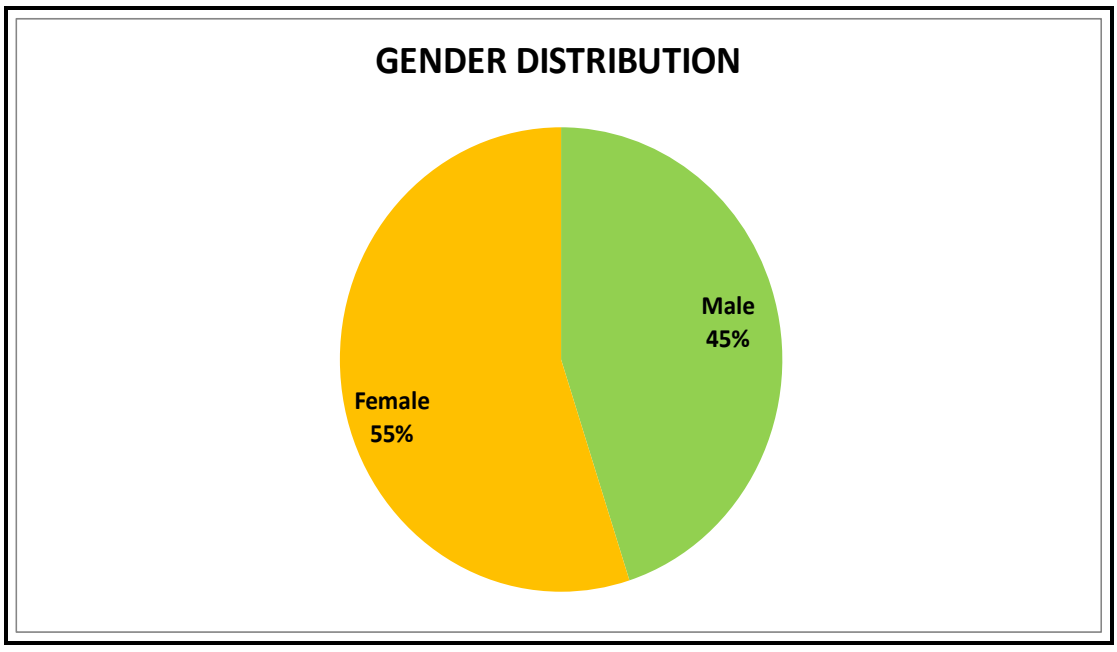

GENDER DISTRIBUTION
Male
45%
Female
55%

Fig-4.3

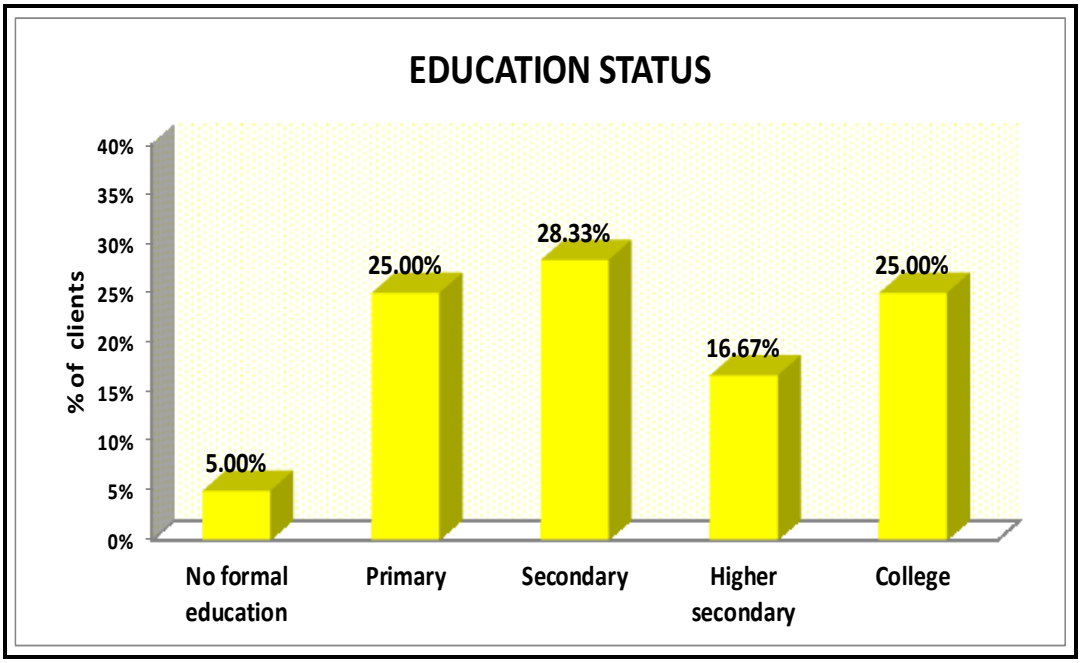

EDUCATION STATUS
% of clients
40%
35%
30%
25%
20%
15%
10%
5%
0%
5.00%
25.00%
28.33%
16.67%
25.00%
No formal education
Primary
Secondary
Higher secondary
College

Fig-4.4

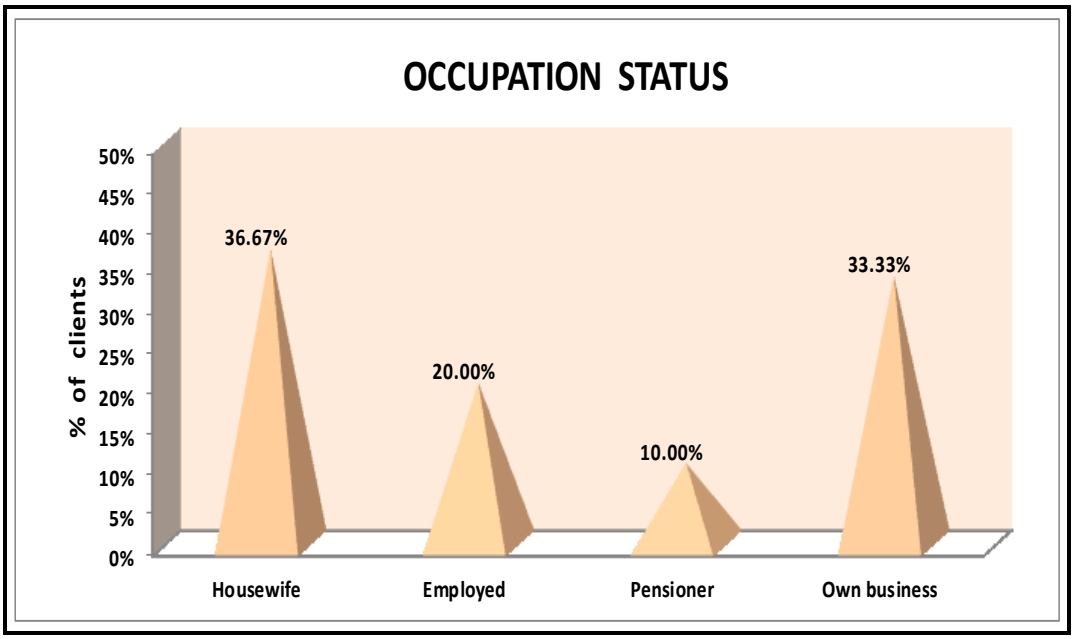

OCCUPATION STATUS
% of clients
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
36.67%
20.00%
10.00%
33.33%
Housewife
Employed
Pensioner
Own business

Fig-4.5

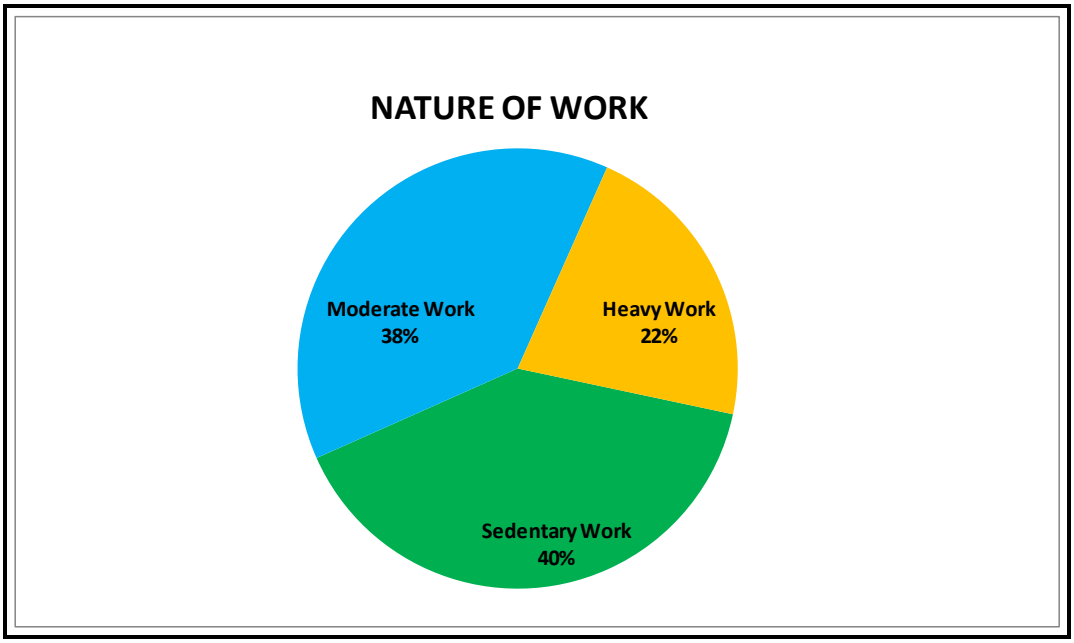

NATURE OF WORK
Moderate Work
38%
Heavy Work
22%
Sedentary Work
40%

Fig-4.6

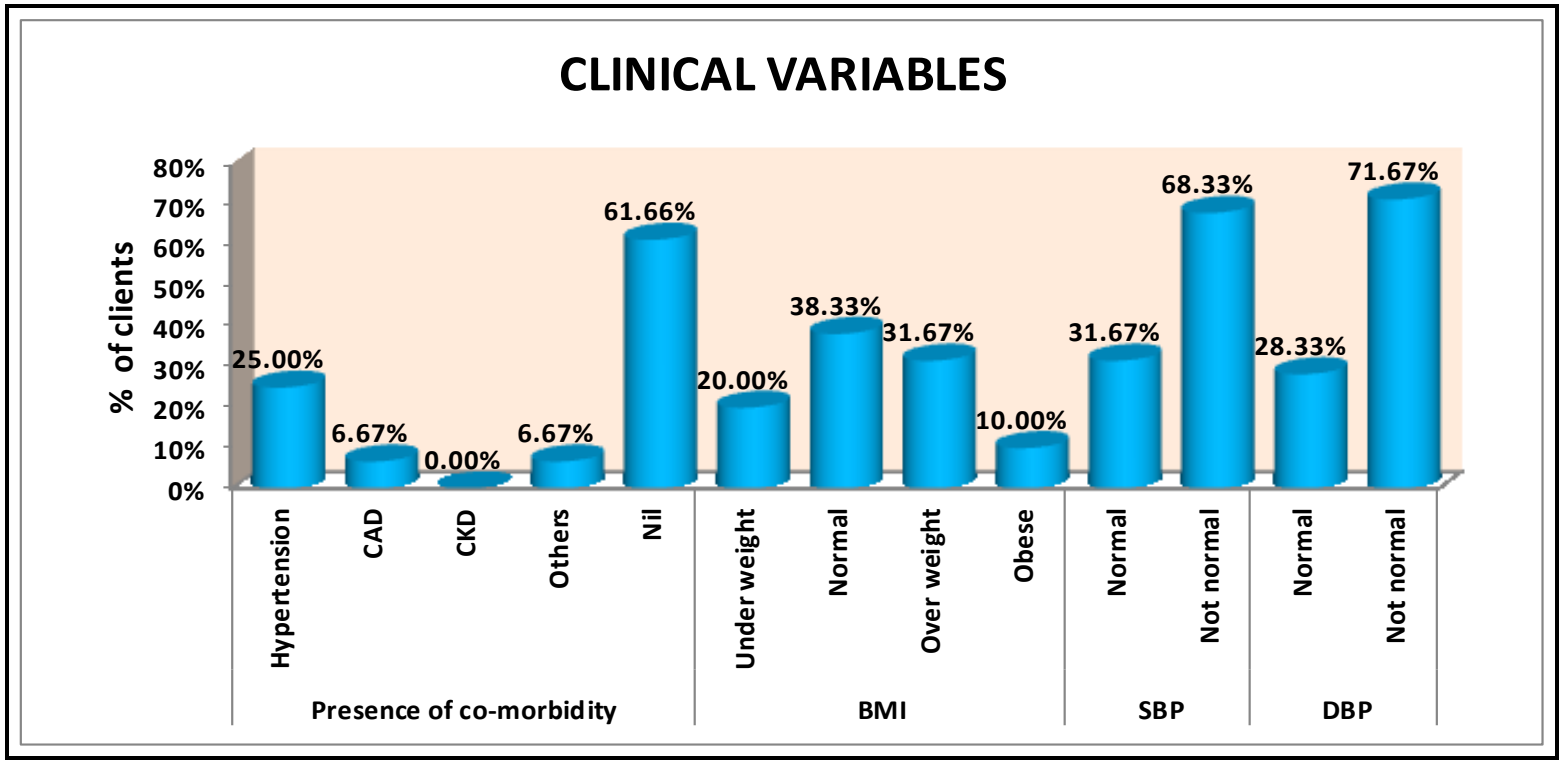

CLINICAL VARIABLES
% of clients
80%
70%
60%
50%
40%
30%
20%
10%
0%
25.00%
6.67%
0.00%
6.67%
61.66%
20.00%
38.33%
31.67%
10.00%
31.67%
68.33%
28.33%
71.67%
Hypertension
CAD
CKD
Others
Nil
Under weight
Normal
Over weight
Obese
Normal
Not normal
Normal
Not normal
Presence of co-morbidity
BMI
SBP
DBP

Fig-4.7

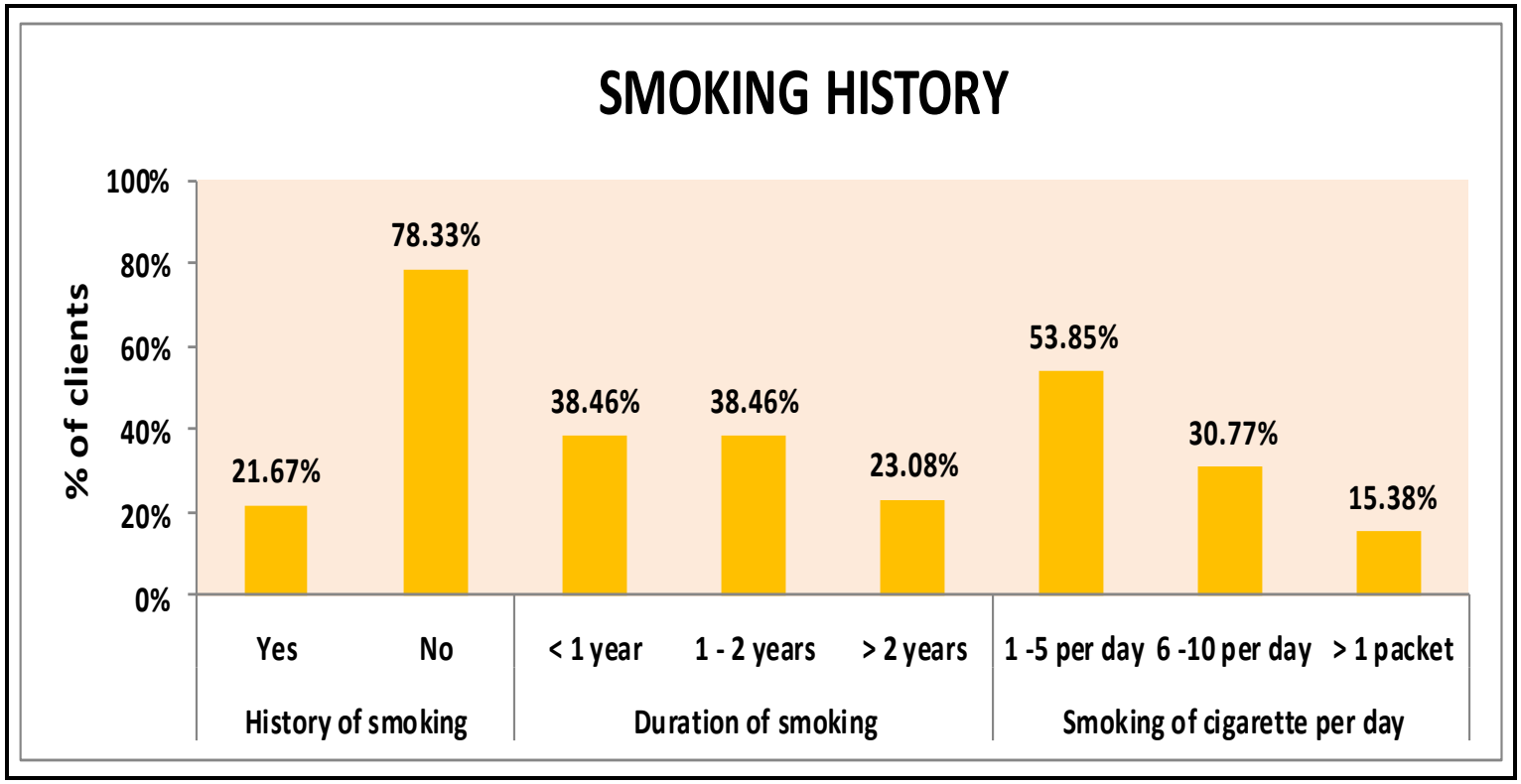

SMOKING HISTORY
% of clients
100%
80%
60%
40%
20%
0%
21.67%
78.33%
38.46%
38.46%
23.08%
53.85%
30.77%
15.38%
Yes
No
< 1 year
1 - 2 years
> 2 years
1 -5 per day
6 -10 per day
> 1 packet
History of smoking
Duration of smoking
Smoking of cigarette per day

Fig-4.8

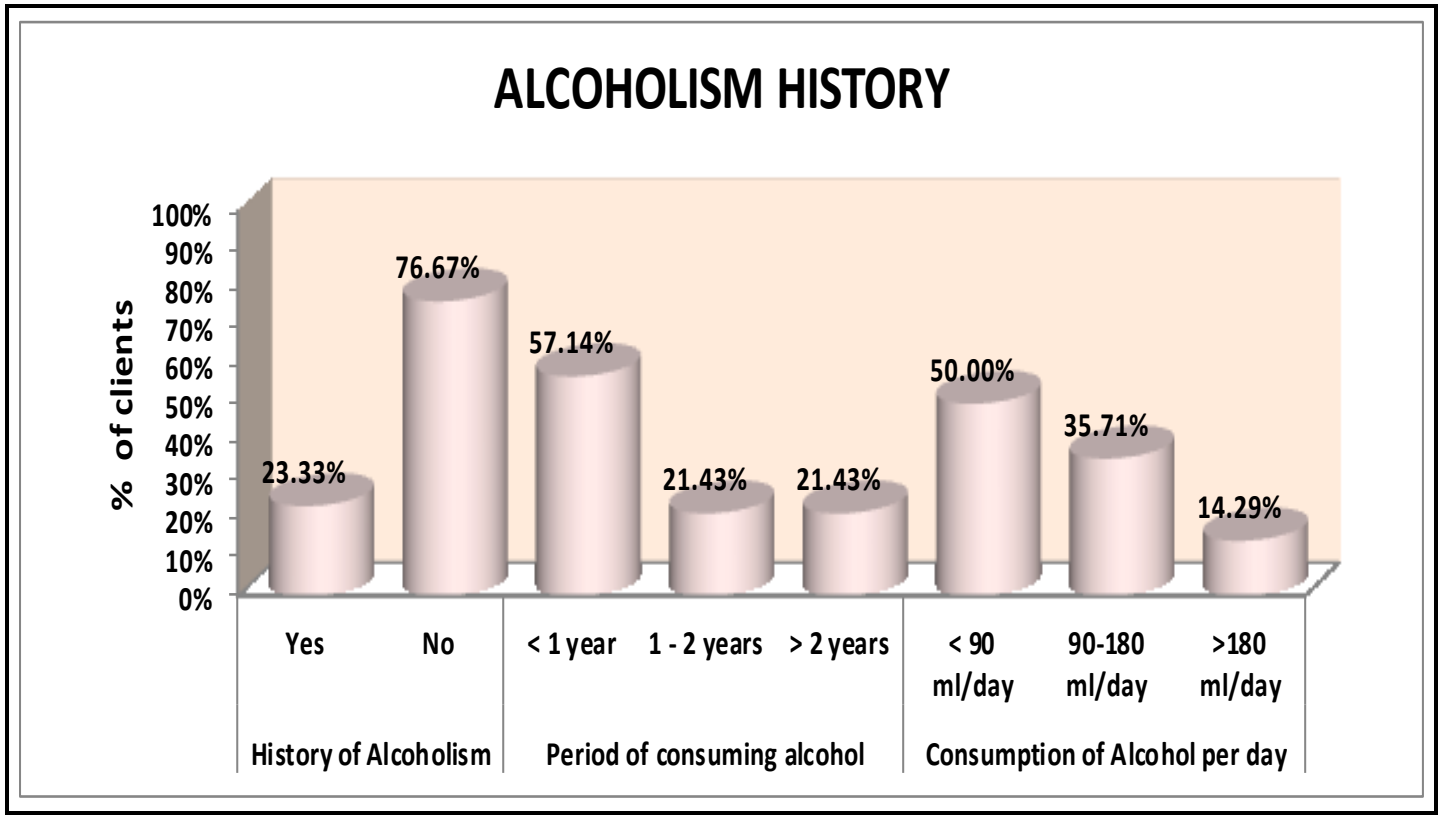

ALCOHOLISM HISTORY
% of clients
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
23.33%
76.67%
57.14%
21.43%
21.43%
50.00%
35.71%
14.29%
Yes
No
< 1 year
1 - 2 years
> 2 years
< 90 ml/day
90-180 ml/day
>180 ml/day
History of Alcoholism
Period of consuming alcohol
Consumption of Alcohol per day

Fig-4.9

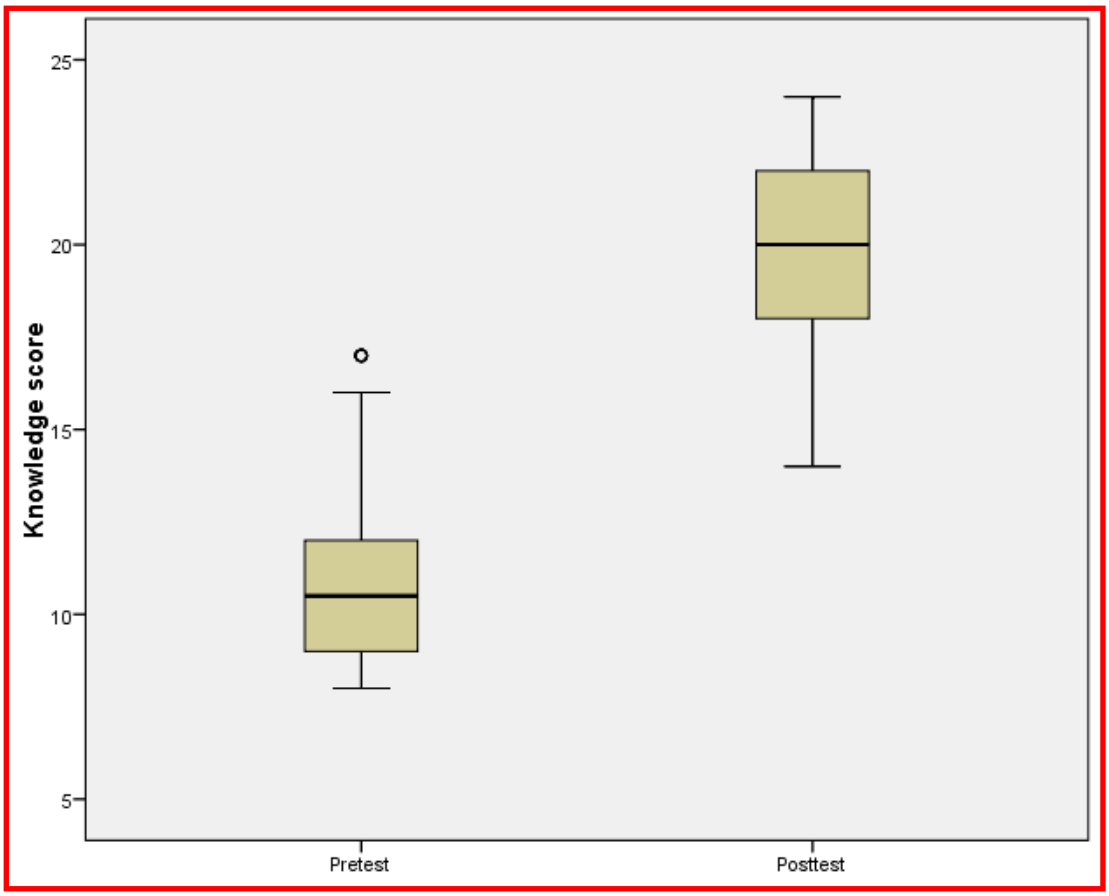


Fig-4.10

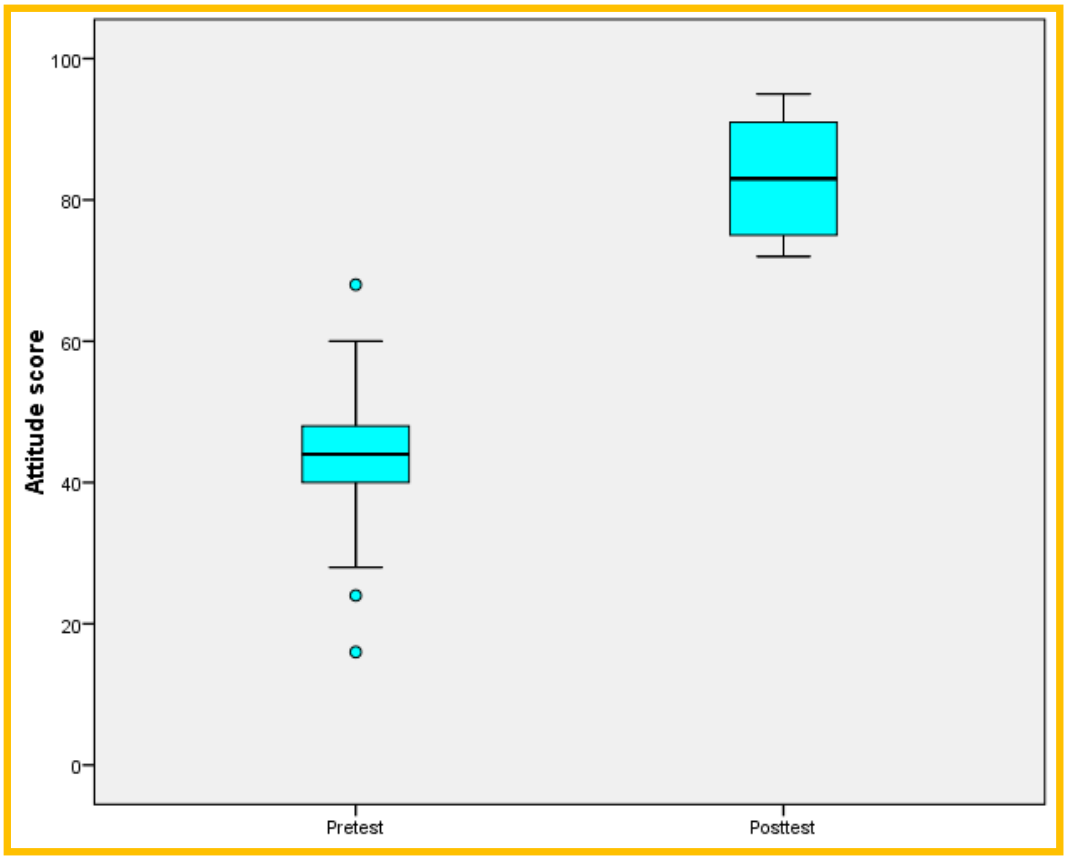


Fig-4.11

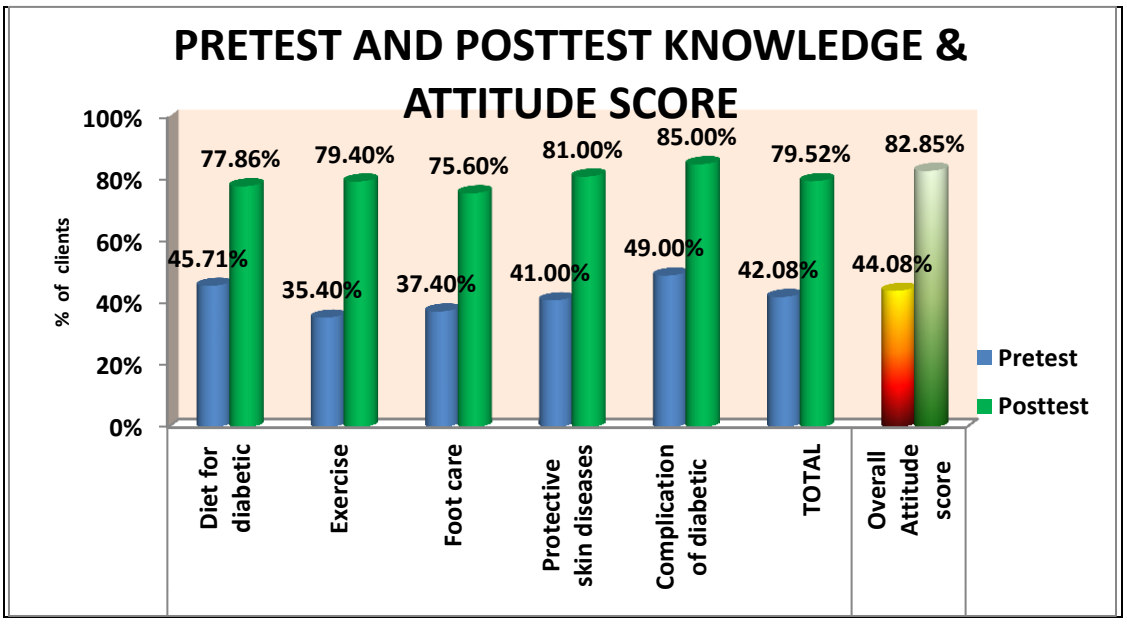


Fig-4.12

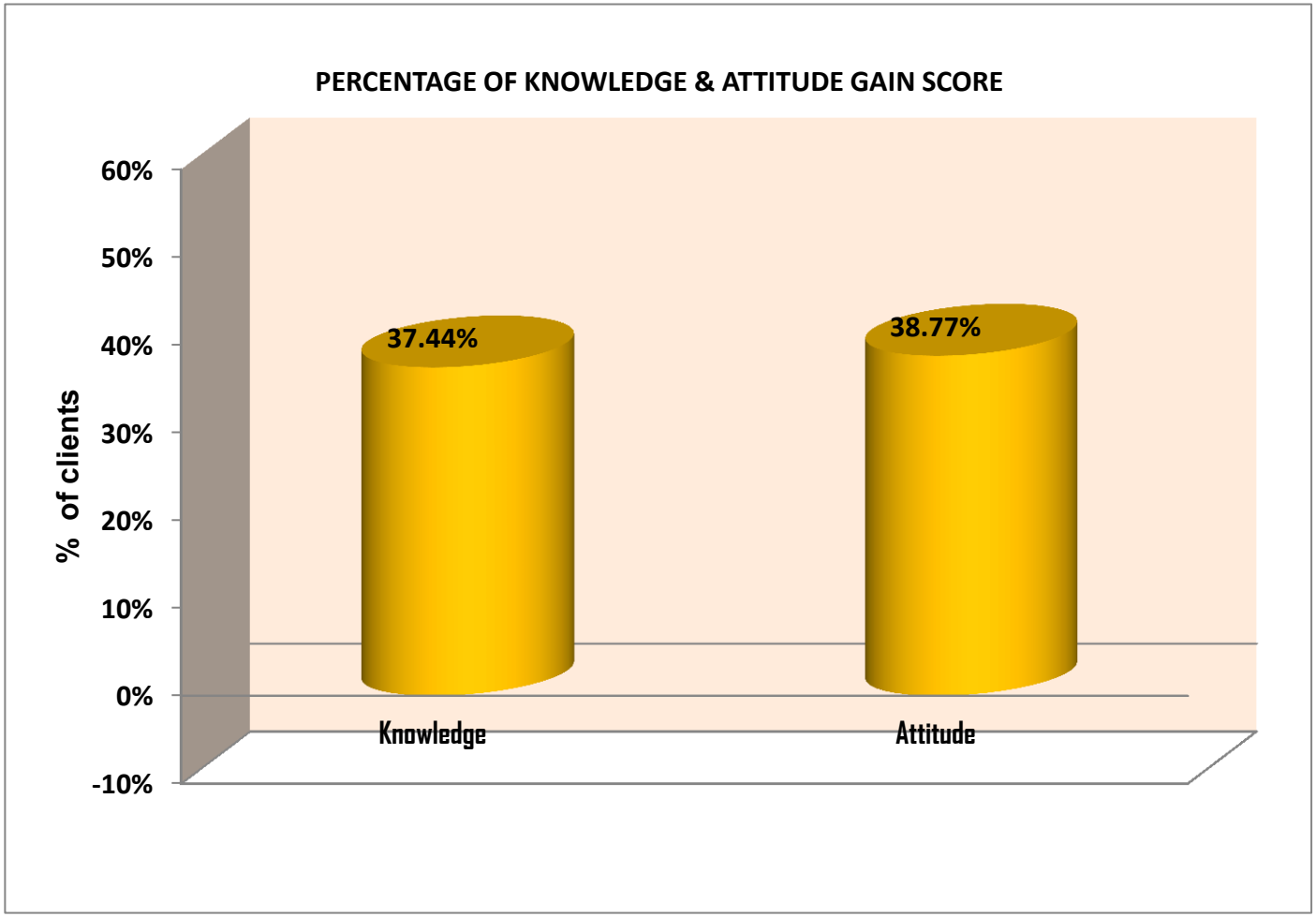

PERCENTAGE OF KNOWLEDGE & ATTITUDE GAIN SCORE
% of clients
60%
50%
40%
30%
20%
10%
0%
-10%
37.44%
38.77%
Knowledge
Attitude

Fig-4.13

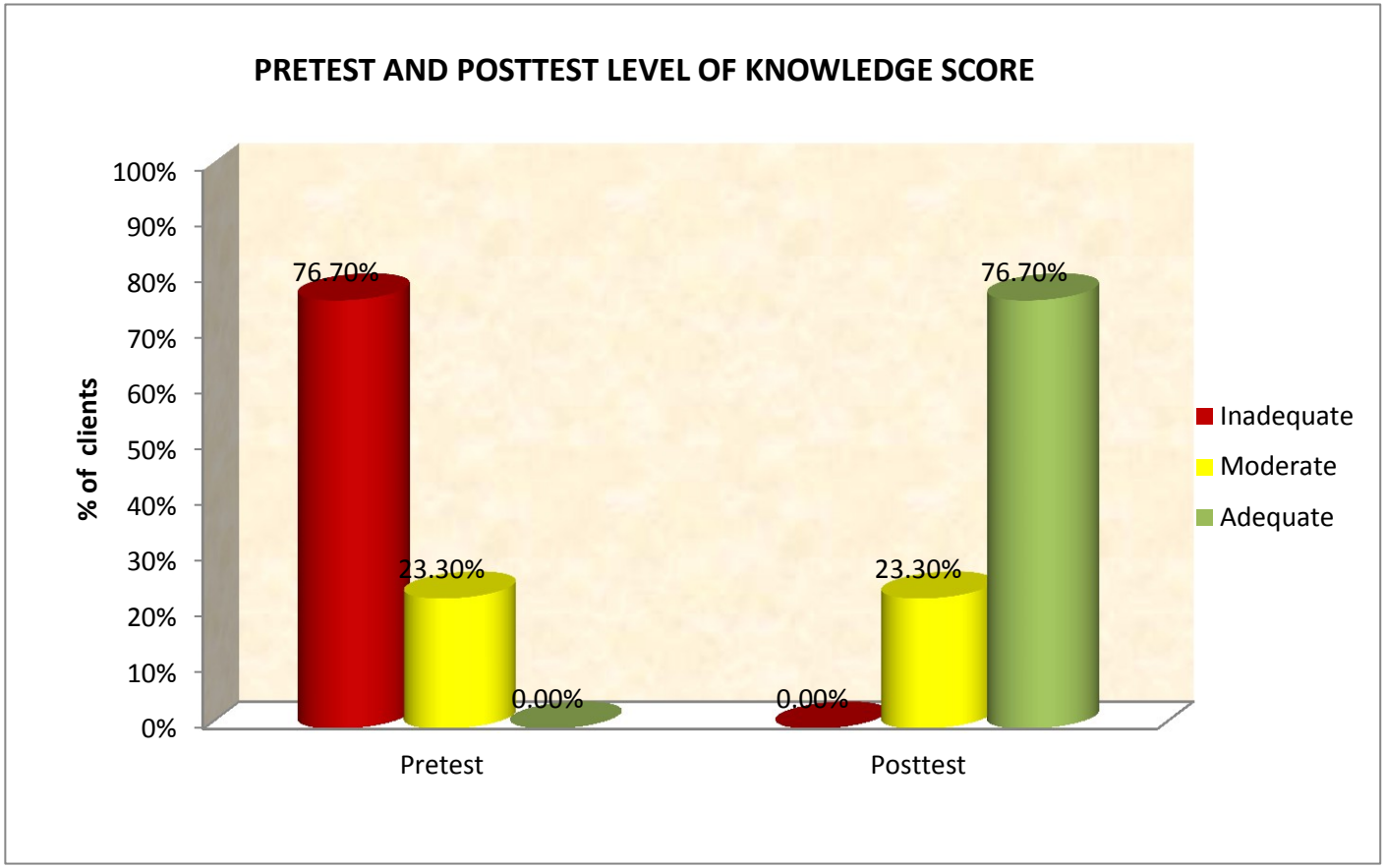

PRETEST AND POSTTEST LEVEL OF KNOWLEDGE SCORE
% of clients
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
76.70%
23.30%
0.00%
0.00%
23.30%
76.70%
Pretest
Posttest
Inadequate
Moderate
Adequate

Fig-4.14

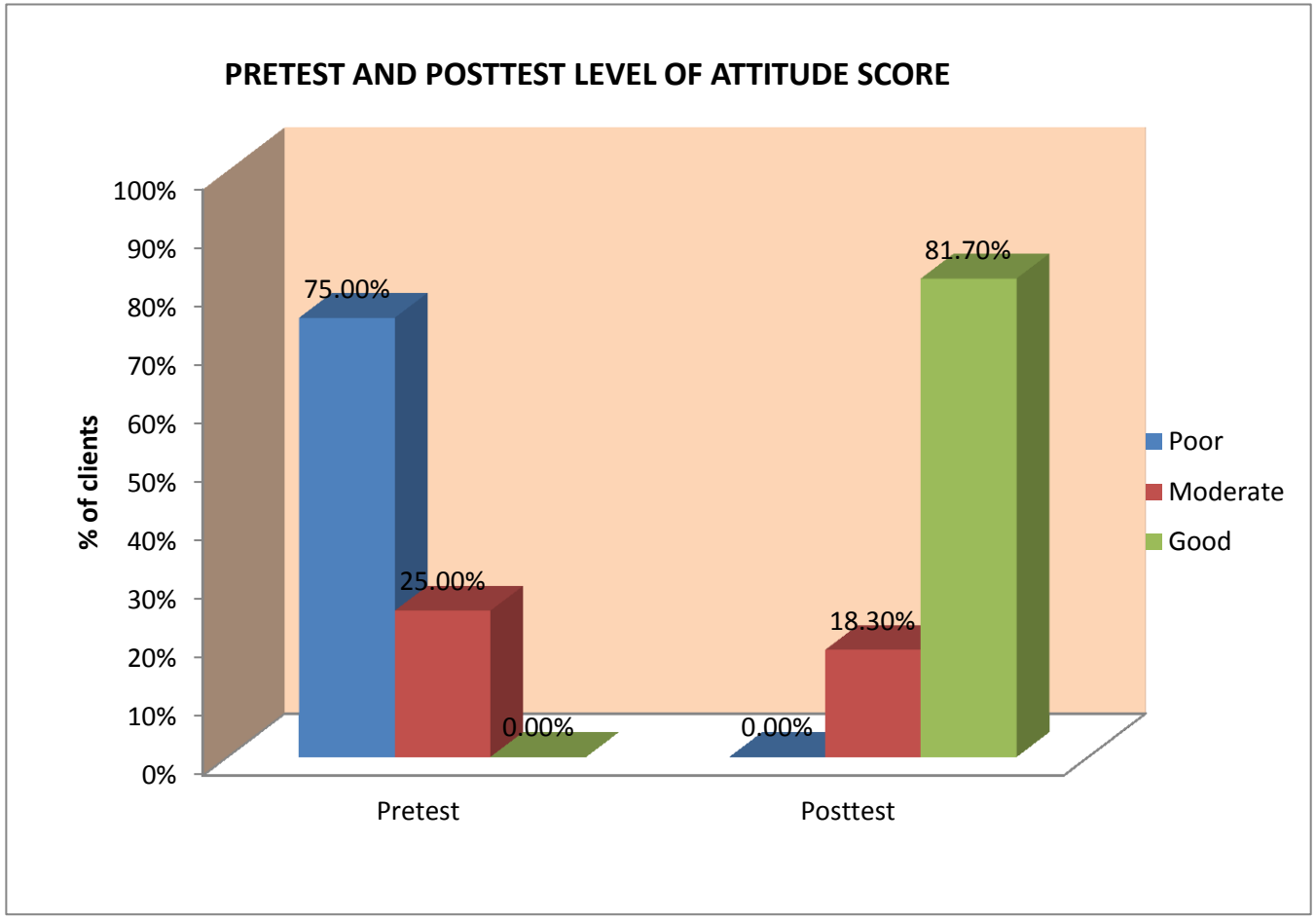

PRETEST AND POSTTEST LEVEL OF ATTITUDE SCORE
% of clients
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
75.00%
25.00%
0.00%
0.00%
18.30%
81.70%
Pretest
Posttest
Poor
Moderate
Good

Fig-4.15

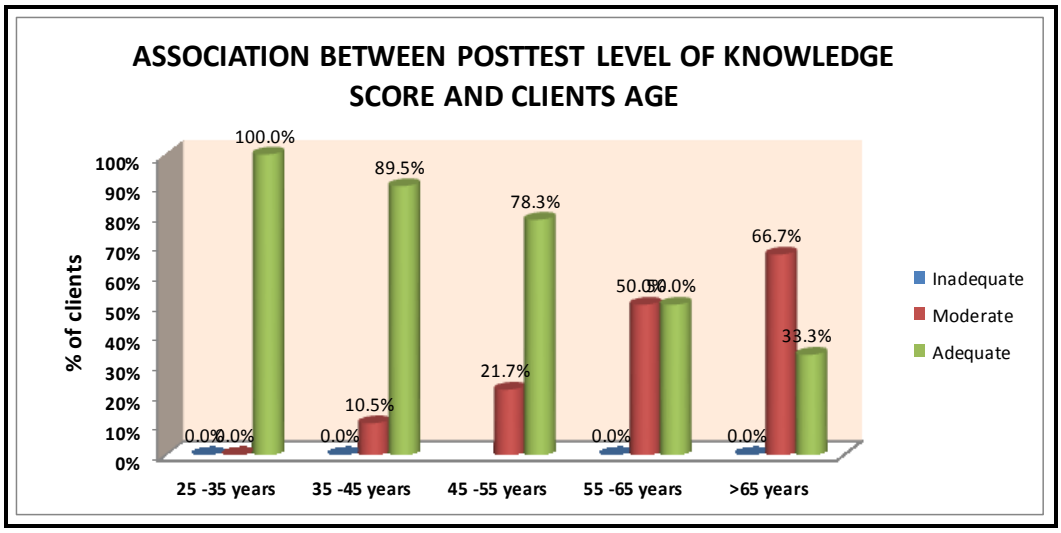


Fig-4.16

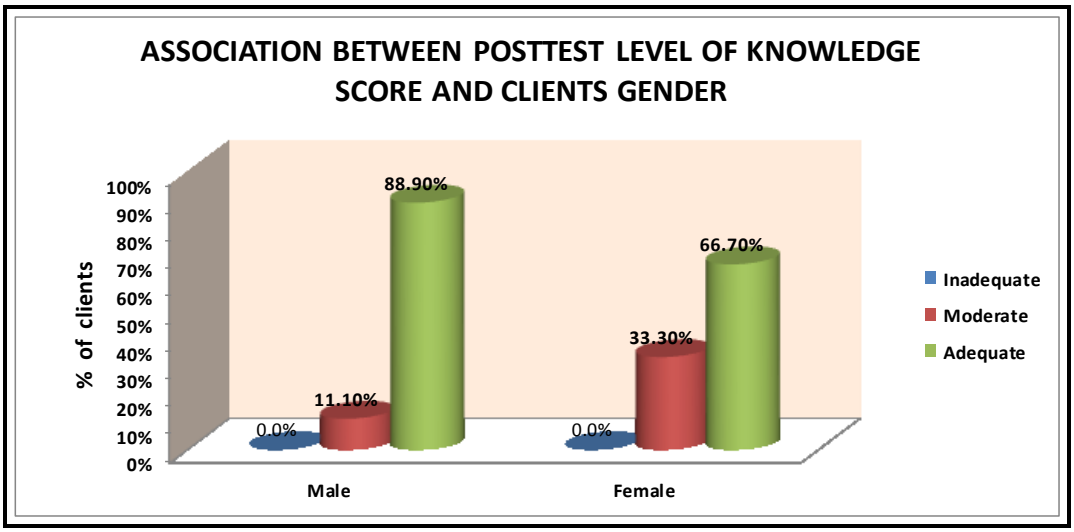


Fig-4.17

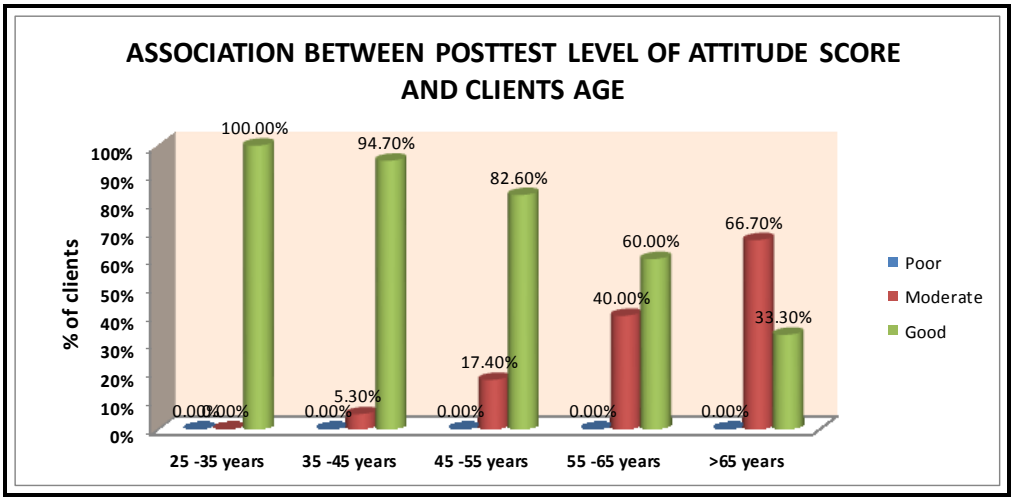


Fig-4.18

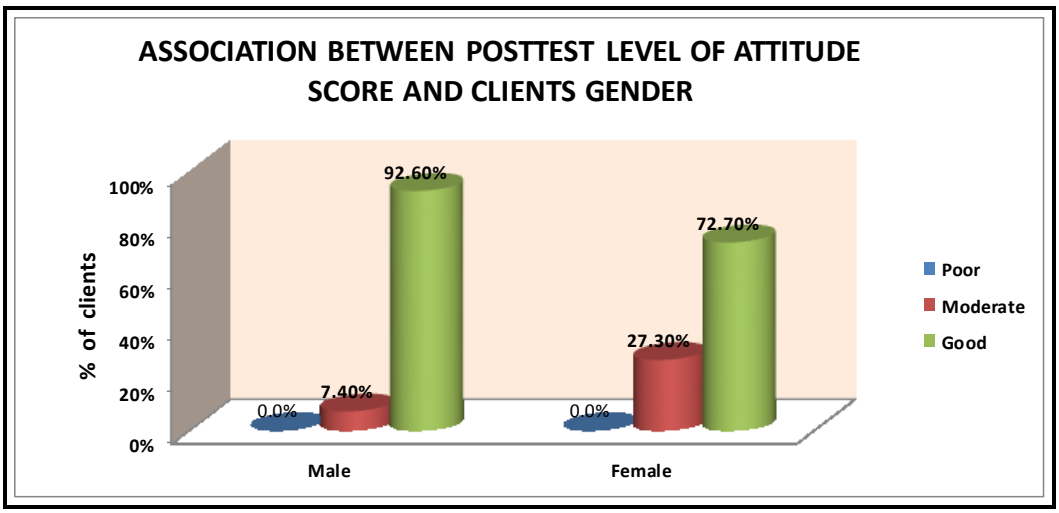
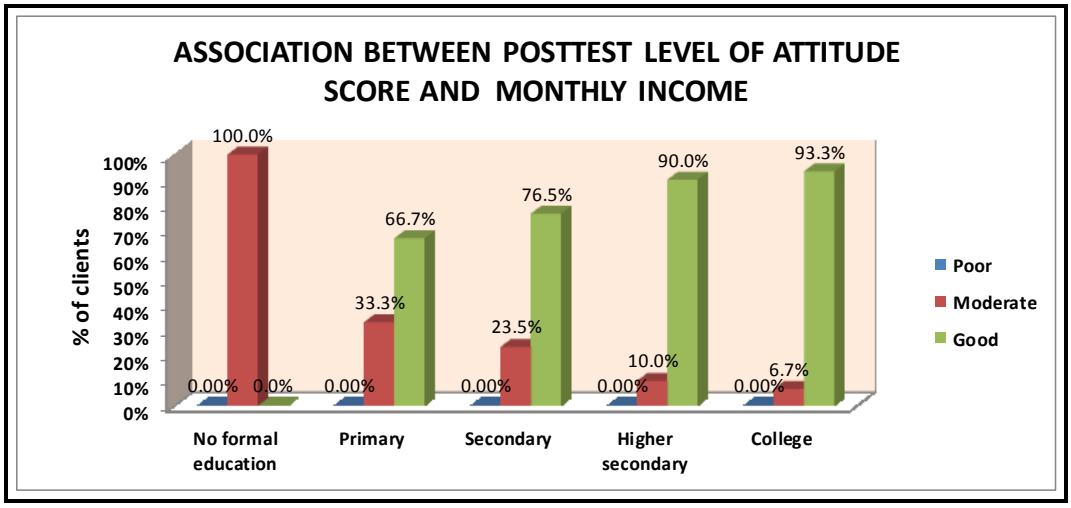


Fig-4.19




WAITING HALL


காத்திருக்கும் இடம்
WAITING HALL